Access to Knowledge in South Africa

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Introduction

Access to Knowledge in South Africa

by Andrew Rens

"The Doors of Learning and Culture Shall be Opened! ...All the cultural treasures of mankind shall be open to all, by free exchange of books, ideas and contact with other lands". The Freedom Charter.[1]

Access to knowledge (A2K) is a self-identifying movement, encompassing a host of initiatives which share the broad goal of lobbying against legal and policy developments which potentially inhibit the growth of knowledge and equitable access to knowledge resources. A2K arose in the the aftermath of the Agreement on TRIPS (Trade Related Aspects of Intellectual Property) concluded as part of the Global Agreement on Trade and Tariffs (GATT), which led to the rise of the World Trade Organisation (WTO).

In South Africa there have been a wide variety of A2K initiatives, emerging not only as a result of these developments, but as will become apparent from deep roots in South Africa's past as well as developments which parallel the effect of international "Intellectual Property" post-TRIPS, ranging from multinational corporate patenting practises to the structuring of knowledge production in university research. This introduction considers very briefly the precursors to the contemporary access to knowledge movement in South African history, the emergence of the access to medicines campaign, and then discusses the chapters and case studies In the study. This study is in two parts, the first part surveys the conditions of access to knowledge and examines two problems, access to learning materials and how policy structures

[1] The Freedom Charter was adopted by the Congress of the People convened at Kliptown on 25-6 June 1956. The Freedom Charter served as a rallying point for the struggle for a united, non racial and democratic South Africa, see further 'The Doors of Learning shall be open to all', Andrew Rens iCommons Annual 2007, http://www.icommons.org/Annual07.

the production of knowledge in South African universities so that the disparities of the past are perpetuated. The second part examines responses to problems of access to knowledge

In South Africa the contemporary A2K movement is prefigured in some respects by aspects of the the anti-apartheid struggle. The Freedom Charter sets out learning, and access to books as essential aspects of a democratic society. Education was central to some of the major events of the apartheid era. The apartheid government had developed a system of segregated education, purposefully underdeveloping black schools and preparing black learners for menial labour only.[2] From the 1950's learners and parents responded from the 1950s already with school boycotts. The 1976 riots, a turning point for international awareness of the extent of oppression and police brutality within the country, were precipitated by students' rejection of apartheid education laws, specifically that the medium of instruction should be Afrikaans, at that time regarded as the language of the oppressor. With much of the liberation struggle leadership in forced exile during the 1980s, students and student organisations became the dynamo of continued struggle. At the same time, much government propaganda was disseminated through education, in the form of textbooks which neglected the history of African people or which distorted recent history. In the broader public sphere, strict censorship laws and state ownership of the popular media meant that accurate news and emancipatory political information was difficult or illegal to obtain. Thus, some of the anti-apartheid movements of the 1980s focused on the provision of people's textbooks and the creation of community information centres, an important precedent for the current A2K movement.

The value placed by the Freedom Charter's on access to knowledge in free, open and democratic society is echoed in the post apartheid 1996 Constitution[3]; which contains

[2] Based on the Bantu Education Act of 1953.
[3] Constitution of the Republic of South Africa 1996

rights to free expression[4], access to information[5], and education[6]. The right to freedom of expression includes the right not only to impart information but also to receive information. Freedom of expression also explicitly includes academic freedom. The post apartheid era has been marked by efforts realise these and other constitutional rights.

The access to medicines movement which emerged in the late 1990s, and which continues today, has also shaped the emergence of the A2K movement not only in South Africa, and around the world. Access to medicines remains the most successful challenge thus far to attempts to enclose knowledge and its benefits. In South Africa, the movement is led by the Treatment Action Campaign (TAC).[7] TAC has focused on removing the barriers to access to medicines which result from national health policy and patents on essential medicines. TAC[8] was founded on International Human Rights Day, 10 December 1998, by a small group of activists including anti-apartheid activist and National Coalition for Gay and Lesbian Equality-leader Zackie Achmat.[9] Achmat had promised the influential anti-apartheid and gay rights activist Simon Nkoli to continue his struggle for fair treatment of gays and lesbians and access to treatment.[10] The formation of TAC was catalysed by Nkoli's death due to lack of access to

[4] Section 16. Freedom of expression
1) Everyone has the right to freedom of expression, which includes
   a) freedom of the press and other media;
   b) freedom to receive or impart information or ideas;
   c) freedom of artistic creativity; and
   d) academic freedom and freedom of scientific research.

[5] Section 32. Access to information
1) Everyone has the right of access to :
   a) any information held by the state; and
   b) any information that is held by another person and that is required for the exercise or protection of any rights.

[6] Section 29. Education
1) Everyone has the right :
   a) to a basic education, including adult basic education; and
   b) to further education, which the state, through reasonable measures, must make progressively available and accessible.

[7] http://www.tac.org.za.

[8] http://www.tac.org.za/community/

[9] Achmat was named one of Time magazine's heroes in 2003. It may be argued that Achmat's charismatic leadership has been a large aspect of the image of the TAC in the popular mind.

[10] Mbali, Mandisa 'The Treatment Action Campaign and the history of rights-based, patient-driven HIV/AIDS activism in South Africa' UKZN Centre for Civil Society Research Report No. 29, p. 10.

antiretroviral treatment (ART). In response, Achmat called upon fellow activists to join a symbolic fast for access to treatment, and this gathering was where the movement was planned.[11] TAC went on to undertake several high profile, successful actions in the cause of access to medicines.

The broader struggle for access to knowledge is not however over. Many of the contributions consider aspects of the problem of access to learning materials. This is due to a number of factors. Access to learning materials is a central factor in access to knowledge.

> "There can be little doubt that education is a cornerstone of social and economic development, or that access to learning materials is a crucial factor in the success of any educational system. In a world which values the production and dissemination of information and knowledge, human capital growth is a serious developmental concern. We live, apparently, in a 'knowledge economy', and if so, two processes seem worth noting. First, societies of the global south are struggling with everyday challenges of education and literacy, while their institutions and governments perform the inevitable balancing act between scarce resources and vast needs. Second, producers of knowledge goods, heretofore located in the north, are increasingly global in scope; exporting, with their expansion, an intellectual property rights (IPR) regime that poses current and potential deterrents to learning".[12]

No society with severe constraints on access to learning materials can be considered to provide access to knowledge in any meaningful way. At the same time learning

[11] *Ibid*., 12.

[12] 'Intellectual Property, Education and Access to Knowledge in Southern Africa' Achal Prabhala, Dick Kawooya, Andrew Rens in Development Agendas: Diverse Views on Intellectual Property, ICTSD/UNESCO (forthcoming 2009), pre-publication available at available at http://www.iprsonline.org/unctadictsd/regional_research.htm, p 2

materials are not simply commodities.

> "Access to learning materials is one aspect of access to knowledge. Although, for the purpose of analysis, we might divide access to learning materials into issues of bulk access, format access (such as the availability of works in appropriate formats for sensory disabled persons) such classifications tend to overlook the unique nature of knowledge. Knowledge and or knowledge media are often notionalised as 'commodities' for the purposes of economic analysis, denying the catalytic potential of knowledge for development and economic efficiency. Access to knowledge and to learning materials thus encompasses a multiplicity of routes. Even the issue access to learning materials cannot be simply reduced to 'ownership' of textbooks, but extends to ways in which learners make use of texts, such as the act of copying a library resource."[13]

Access to learning materials serves as a proxy for access to knowledge in the three of the four chapters which make up Part 1. In Chapter 1 Schonwetter, Ncube and Chetty examine the fundamental conditions which affect access to knowledge in South Africa, in their discussion of 'A2K in South Africa and Copyright Regulation'. In Chapter 2 the same authors examine how the matrix of legislation and policy is interpreted in practise in ' A2K in South Africa and the Copyright Context'. How these conditions affect access to learning materials is the subject of Chapter 3 by Julian Jonker who describes the problems encountered in access to learning materials, discusses a range of solutions, and characterises access to learning materials as a socio economic right. As suggested by Prabhalia, Kawooay and myself the problem of access to knowledge is as much a problem of the structure of the production of knowledge, both globally and more especially in South Africa. That is theme of Chapter 4 'Two Different Visions of the Knowledge Society: Access to Research - knowledge for development in a transitional society', in which Kahn and Gray argue that despite its avowed development intentions post apartheid higher education and research policies have incorporated a number of assumptions about knowledge and research

[13]Prabhalia et al, p6 of pre-publication

which have the cumulative effect of entrenching the hegemony of knowledge produced in the global North.

It is difficult to do justice to the range of solutions to these complex problems. In Part 2 we therefore chose to present a series of case studies, written for the most part by those engaged in the specifics of the particular case. The 1st Case Study by Kerryn McKay examines the Commons Sense Project, a ground breaking initiative in 2005-6, which sought to mobilise a nascent knowledge commons network, to create knowledge resources, including learning materials, under open licences, such as the Creative Commons licences. The material would thus be open to all, with legal barriers removed by the simple device of the authors granting permission for access 'up front'. The Commons Sense project is an example of the many projects to create alternatives to restrictive intellectual property rules and practises.

During 2006 reaction to restrictive intellectual property practises resulted in the formation of Freedom to Innovate South Africa (FTISA). The subject of the 2nd Case Study by Bob Jolliffe, FTISA arose in response to the practise of certain multinational software vendors of taking advantage of South Africa's under-resourced patent office, and colonial style patent legislation to obtain patents over software, even though South African patent law does not in principle permit such patents. The case of FTISA is significant access to knowledge since its an example of local activism in response to intellectual property expansionism carried out not through the global intellectual property system, nor even through bi-lateral trade negotiations in which the power of multinationals situated in the global North is indirect, but through practises by some of those multinationals which recruit national intellectual property law for expansionist purposes. The issue of software patenting may seem somewhat removed from the daily struggle for existence of many South Africans, yet as the case study suggests, freedom to innovate is directly tied to economic development in South Africa. In a similar vein, the subject of the 3rd Case Study; the struggle over document standards which ensued with the introduction of OOXML as a rival document standard to the existing ODF, surfaces not technological concerns but instead the role of technology in government, and access to knowledge. Ironically the way in which the struggle developed through 2007 and 2008 produced further concerns about the un-democratic and opaque way in which global

standards are constructed.

The 4th Case Study examines a legal intervention during 2007 into the structure of the book publishing industry in South Africa. In Chapter 3 Jonker pointed to the concentrated structure of the book publishing industry in South Africa as a factor inhibiting access to learning materials. In the 'Intervention in the merger of Pearson & Harcourt' examines a public interest intervention into a competition regulation process the interests of access to learning materials. While successfully preventing the further concentration of the book publishing industry in South Africa, the intervention could not, due to the nature of the regulatory process involved reduce existing concentration. The 5th and 6th Case Studies focus on alternatives to the provision of access to knowledge through the conventional book publishing industry which was the subject of the 4th Case Study. In ' A University's Response: OER at UWC' Philipp Schmidt discusses Open Educational Resources at the University of the Western Cape, while the commons based peer production of school textbooks is the subject of 'The Free High School Science Text Project'. Both studies consider the successful creation of open educational resources, as envisaged by the Commons Sense project. Out of the six initiatives considered in the case studies, only FHSST survives in its original form but while at the University of the Western Cape continues to offer open educational resources, the promise of a university wide adoption of OER's seems remote. **T**aken together these case studies show a wide variety of responses to issues of access to knowledge. They also display the ingenuity and tenacity of a small number of individuals who have engaged pervasive problems. They point to possibilities for future interventions. Unfortunately they also show the vulnerability of access to knowledge initiatives which in South Africa have consisted primarily of brief projects housed in institutions to which access to knowledge is at best orthogonal. What we have not been able to present as case studies is almost as important as what we have. There are no instances of concerted institution building, of the creation of organisational capacity for long term access to knowledge work, whether academic research, or activism. There is a significant danger that if the next phase of access to knowledge in South Africa is not characterised by institution building that access to knowledge in South Africa will not only fail to advance but will lose ground**.**

CHAPTER 1

Access to Knowledge in South Africa and Copyright Regulation

By Tobias Schonwetter, Caroline Ncube and Pria Chetty[14]

Contents of Chapter 1

[14]This chapter was first published as a section of the African Copyright and Access to Knowledge (ACA2K) Project South Africa Country Report, http://www.aca2k.org. The ACA2K Project is a research project funded by Canada's International Development Research Centre (IDRC) and South Africa's Shuttleworth Foundation, and managed by the LINK Centre, Graduate School of Public and Development Management (P&DM) Wits University Johannesburg. See http://www.idrc.ca, http://www,shuttleworthfoundation.org, and http://link.wits.ac.za."

Executive Summary

Access to knowledge in general, and access to learning materials more particularly, are of crucial importance to developing nations as they are keys to sustainable development. Accordingly, this research project seeks to establish to what extent, if any, copyright is fulfilling the objective of facilitating access to knowledge/learning materials in South Africa. The research tested the following two hypotheses:

- The South African copyright environment does not maximise effective access to learning materials; and
- The South African copyright environment can be changed to maximise effective access to learning materials.

In testing these hypotheses**,** this research examined the South African copyright environment and its impact on access to learning materials in South Africa. The copyright environment as it is understood by this project encompasses laws, policies and practices. Therefore the report canvasses each of these in detail. The report includes a survey of relevant legislation, policies, reported case law, secondary literature and the results of impact assessment interviews conducted with relevant stakeholders.

The report observes that in South Africa, copyright law in general, and the issue of access to learning materials in particular, have recently started to attract more attention. Thus, the issues are on the radar of the relevant stakeholders.

The survey of statutes showed that South Africa's primary piece of legislation in this field, the Copyright Act 98 of 1978, is in many respects in need of review and amendment to keep pace with international copyright legislative developments relevant to access to knowledge. As an example, it is evident that the legislation needs to be updated to speak to copyright questions born from advances in information and communication technology.

In addition to the legislation, the South African Government has recently adopted a notable policy on free and open source software (FOSS). The policy is indicative of the intention of the South African Government to lower barriers for adopting information and communication technologies (ICTs). The policy is significant in that the realisation of improved access to

knowledge in South Africa relies to a significant extent on lowering barriers to adoption of ICTs.

With regard to policies implemented by stakeholders, it was evident that the university under study has a number of relevant policies. These comprehensive policies address intellectual property rights and educational technology.

The research team found that there is no reported case law that directly addresses access to learning materials. The report offers some suggestions as to why this is the case. However, there are important parallel importation and general infringement cases that may have significance for access to learning materials, and these are briefly highlighted.

There is a growing body of South African secondary literature that addresses the relationship between the copyright environment and access to knowledge. However, as far as access to learning materials is concerned, only a few legal academics participate in the discussion. Most relevant articles are penned either by rights-holder associations such as the Publisher's Association of South Africa (PASA) or by user advocacy groups and library associations. The stance taken in most of these articles is biased towards copyright protection. Meanwhile, the majority of the (few) legal academics dealing with copyright law and access to knowledge appear to favour a less stringent copyright protection regime in South Africa in order to facilitate access to learning materials and to foster education in South Africa. In other words, this subset of the secondary literature supports the research project's hypotheses.

In addition to the above-described desk research and its findings, the study team conducted a series of impact assessment interviews with stakeholders. The interviewees were selected from key institutions such as government departments, the publishing industry and universities. Each interviewee gave insight into the intended effect and impact of the copyright environment on access to learning materials. The interviews were structured in such a way as to probe the existence of themes or recurring trends.

The report concludes that there is meaningful appreciation of the issues at stake but that perhaps more can be done to ensure that the copyright environment is more conducive to access to learning materials.

In order to provide a holistic discussion, the report ends with case studies illustrating important issues which did not emerge clearly from the interviews. For example, case studies

of a distance learning institution and of an under-resourced university are presented because the 'educational institution' interviewees conducted for the research came from a well-resourced university that does not provide distance learning.

Ultimately, the report confirms the two hypotheses that were tested and concludes that the South African copyright legislation must be reformed to keep pace with technological advancements and recent policy and legislative advancements related to access to knowledge and learning materials.

1. Background

This report probes the relationship between South Africa's copyright environment on the one hand and access to learning materials on the other. The copyright environment encompasses, among other things, policies; statutes; regulations; case law; interpretations; implementations and practices. Undisputedly, access to learning material is integral to social, economic and political development in every country around the world.

Before tackling the specific research issue at hand, it is instructive to describe the South African context that frames this report. This is done to provide essential background information in terms of South Africa's history, economic situation and cultural diversity, and its current problems and challenges.

1.2 General - Geography

South Africa is the world's 25th-largest country by surface area,[15] and 24th-largest by population.[16] South Africa is located at the southernmost region of Africa. Its northern neighbouring states are Namibia, Botswana, Zimbabwe, Mozambique and Swaziland. South Africa's southern, western and eastern borders are surrounded by the Atlantic and Indian oceans. South Africa is divided into nine provinces: Eastern Cape, Free State, Gauteng,

[15] United Nations Statistics Division *Demographic and social statistics, demographic yearbook* (2006) Table 3. Available at http://unstats.un.org/unsd/demographic/products/dyb/dyb2006/Table03.pdf [Accessed 30 March 2009].

[16] World Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat *World population prospects: the 2008 revision* (2009) Table A.3. Available at http://www.un.org/esa/population/publications/wpp2008/wpp2008_text_tables.pdf [Accessed 30 March 2009].

KwaZulu-Natal, Mpumalanga, Northern Cape, Limpopo, North West and Western Cape.[17]

1.2 Political History

South Africa's colonial past dates back to the 16th century and slavery was entrenched and wide-spread by the 17th century.[18] Slavery was abolished in 1834 and slaves were fully liberated on 1 December 1838.[19] Colonisation led to racial discrimination which reached its height during 1948-94 when South Africa was governed by the National Party.[20] After protracted negotiations, the first democratic elections were held under an Interim Constitution in 1994. This negotiated transition from apartheid to democracy has been hailed as both 'one of the most astonishing political achievements of our time' and 'a miracle'.[21] Since 1994 the government has been led by the African National Congress (ANC). There are various opposition parties, which include the Independent Democrats (IP), the Inkatha Freedom Party (IFP) and the Democratic Alliance (DA). The second democratic elections were held in 1999 and the third were held on 14 April 2004; the fourth democratic elections were held in April 2009.

Since 1994 the government has engaged in the pursuit of democratisation, socioeconomic change and reconciliation. The main activities of these pursuits have been the constitution-making process, local government elections and the establishment of the Truth and Reconciliation Commission.

The aforementioned Interim Constitution resulted from a volatile and protracted negotiation between the apartheid government led by the National Party (NP), and its opponents. It came into force on 27 April 1994 and wrought the following revolutionary changes to South Africa: first, it ended racial discrimination by according all fundamental (human) rights to all citizens. Second, it converted South Africa from parliamentary sovereignty to constitutional sovereignty. Third, it replaced the central government system with a federal one. The Interim

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[17] Section 103(1) of the South African Constitution.

[18] Government communication and information system (GCIS) *2006/2007 South Africa yearbook* at 31.

[19] Ibid. at 31.

[20] Ibid. at 31-44.

[21] World Bank *South Africa – country brief* (2009). Available at http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/SOUTHAFRICAEXTN/0,,menuPK:368086~pagePK:141132~piPK:141107~theSitePK:368057,00.html [Accessed 30 March 2009] and B Kalima-Phiri *South Africa's trade policy:: country background paper for CUTS-CITEE's trade, development and poverty (TDP) project* (2005) Southern African Regional Poverty Network, at 4.

Constitution provided for the drafting of a final Constitution by the Constitutional Assembly in accordance with constitutional principles. Once drafted, the final Constitution had to be certified by the Constitutional Court. The first application in 1996 for certification failed and a second application had to be made. The Constitutional Court granted this application in 1997.

1.3 Cultural Diversity, Education and Literacy

South Africa is a populous and culturally diverse country. As at July 2008, South Africa's population was estimated to be 48.7 million. 79.2 per cent of the population is African (black), 9 per cent is Coloured, 2.6 per cent is Indian and 9.2 per cent is White. 52 per cent of the entire population is female.[22] This population is divided into several distinct groups, namely the Nguni, Sotho-Tswana, Tsonga, Venda, Afrikaner, English, Coloureds, Indians, Khoi, San and immigrants from all over the world.[23] There are 11 official languages: Sepedi, Sesotho, siSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu.[24]

Sections 30 and 31 of the South African Constitution protect the people's right to 'use the language and to participate in the cultural life of their choice' and the right to practice their religion. Section 29(1) of the Constitution provides that 'everyone has the right to a basic education, including adult basic education and further education, which the State, through reasonable measures, must progressively make available and accessible'. Section 29(2) of the Constitution provides for the right to receive educational instruction in the official language or languages of their choice.

South Africa's national budget for 2008/09 provides for government expenditure of 716 billion Rand, of which 121.1 billion Rand are set aside for educational purposes.[25] Thus, South Africa spends more than 5 per cent of the country's GDP on education. This

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[22] *Mid- year population estimates – 2008* Statistics SA. Available at http://www.statssa.gov.za/publications/statsdownload.asp?PPN=P0302&SCH=4203 at 3 [Accessed 30 March 2009].

[23] *2006/2007 South Africa Yearbook* supra note 4 at 1.

[24] Section 6 of the South African Constitution.

[25] SA National Treasury *Budget at a glance.* Available at http://www.treasury.gov.za/documents/national%20budget/2008/guides/Budget%20at%20a%20glance.pdf [Accessed 30 March 2009].

educational expenditure (as a proportion of the GDP) is roughly at OECD level[26] but falls short of the 6 per cent figure recommended by UNESCO for developing countries. Almost 17 per cent of total South African government spending is allocated to education. This budget is supplemented by various education-related expenditures. It should be noted, however, that both aforementioned proportions for educational expenditures in South Africa (percentage of GDP and percentage of total government spending) have been declining in recent years. The absolute amount spent on education has, however, risen significantly in this time. In spite of all these efforts, the performance of South African learners in comparative tests with other countries remains startlingly poor.[27]

South Africa has a single national education system, which is managed by the national Department of Education (DoE) and the nine provincial education departments. The education system is divided into three stages, namely General Education and Training (GET), Further Education and Training (FET) and Higher Education (HE). The GET stage begins with Reception Year (Grade R) and is capped at Grade 9. There is an equivalent Adult Basic Education and Training (Abet) qualification. The FET stage begins at grade 10 and is capped at grade 12. The HE stage consists of a range of degrees, diplomas and certificates up to and including postdoctoral degrees. Only grades 1 to 9 are compulsory. Learners usually begin grade 1 at the age of 6. Therefore, if their studies are uninterrupted and they complete a grade each year, they should complete grade 9 at the age of 14 or 15.

By mid-2007, there were 26 592 public schools in South Africa and 23 Higher Education institutions. Altogether, 12.3 million learners were in South Africa's education system.[28] The numbers of children aged between 5 and 14 by mid-2007 were estimated to be 10 088 100.[29] These numbers suggest a far higher enrolment rate than in most developing countries. It is said that the gross enrolment rate at primary school level is at 100 per cent and still very high

[26] In 2005, the OECD average expenditure on educational institutions as a percentage of GDP from public and private sources was at 5.8 per cent, see OECD *Education at a glance 2008: OECD indicators* (2008) chapter B indicator B.2. Available at http://www.oecd.org/document/9/0,3343,en_2649_39263238_41266761_1_1_1_1,00.html [Accessed 30 March 2009].

[27] OECD *Reviews of national polices for education: South Africa* (2008) at 129.

[28] *2006/2007 South Africa Yearbook* supra note 4 at 195.

[29] *Mid-year population estimates 2007* at 9. Available at http://www.statssa.gov.za/publications/P0302/P03022007.pdf [Accessed 30 March 2009].

up to grade 9. The OECD average is at 98.5 per cent and 81.5 per cent respectively.[30] Compared to the number of learners said to be in the South African education system at the same time, these figures indicate very high levels of access to the compulsory stage of formal education in South Africa. However, older members of the population who were of school-going age during the colonial and apartheid era had much less access to education; and the need to correct the economic distortions due to the education and skills deficit of the majority of the older population remains one of the greatest challenges facing the government today.[31] Largely as a result of past poor access to education, there are high levels of illiteracy. For example, in 2004 it was said that at least 3 million adults were completely illiterate and between '5 to 8 million were functionally illiterate – unable to function adequately in the modern world due to under-developed reading and writing skills'.[32]

According to the 2008 Development Indicators issued by the South African government:[33]

> Gender parity is considered to have been attained when [the Gender Parity Index [GPI]] lies between 0.97 and 1.03. The GPI for total school enrolment (Grade 1 to Grade 12) indicates that gender parity has been achieved. The 2007 GPI for secondary education shows a disparity in favour of girl learners [GPI: 1.058] whilst for primary education the picture is reversed, with more boys in primary schools than girls [GPI:0.966]. The trend across the years may mean that, relative to the appropriate school-age population, more male learners in the school system repeat some of the lower grades.

The Development Indicators do not provide similar statistics or analysis for tertiary education. The United Nations has however compiled the following data for South Africa:[34]

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[30] OECD *Education at a glance 2008: OECD indicators* supra note 12 at 343.

[31] B Khalima-Phiri supra note 7 at 4.

[32] E Sisulu 'The culture of reading and the book chain: how do we achieve a quantum leap?' 2004, keynote address at the Symposium on Cost of a culture of reading, 16 -17 September 2004. Available at http://www.nlsa.ac.za/NLSA/News/publications/culture-of-reading [Accessed 30 March 2009].

[33].The Presidency of the Republic of South Africa *Development Indicators 2008* (2008) at 46. Available at http://www.info.gov.za/view/DownloadFileAction?id=84952 [Accessed 30 March 2009].

[34]. United Nations Millennium Development Indicators *Gender parity index in tertiary level enrolment* (2008). Available at http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=614 [Accessed 30 March 2009].

Table 1: Gender Parity Index in tertiary level enrollment in South Africa

1991	1999	2000	2001	2002	2003	2004	2005	2006
0.83	1.16	1.24	1.15	1.16	1.17	1.19	1.21	1.24

(last updated: 14 July 2008)

Applying the principle that gender parity is attained when the GPI is between 0.97 and 1.03, a growing gender disparity in favour of female students can be observed in tertiary education enrollment in South Africa.

In spite of the increasing availability of digital technologies, printed books are still the most accessible and readily available learning tool in South Africa.

1.4 Economy

According to the IMF, South Africa has the world's 25th-largest economy by GDP (PPP).[35] This makes South Africa Africa's leading economy. As such, South Africa plays an important leadership role for developing countries on the world stage.[36] South Africa's economy has demonstrated sustained growth and recently reached an all-time high.[37] The country's tax collection and financial and debt administration are lauded by the World Bank as 'international best practice'.

[35] International Monetary Fund *World economic outlook database (April 2008 - data for 2007)*. Available at http://www.imf.org [Accessed 30 March 2009].

[36] World Bank *South Africa – Country Brief (Economy)* supra note 7.

[37] T Contogiannis 'Economic growth: constraints and prospects for the South African economy' (2007) 35 *Discourse* at 42; *2006/2007 South Africa yearbook,* supra note 4 at 157.

This promising economy is, however, confronted with several challenges. First, a large portion of the population remains steeped in dire poverty to the extent that some, most notably former President Thabo Mbeki, view South Africa as having two economies or nations, 'one nation, white and rich, and the other, poor and black'.[38] Second, there are very high levels of unemployment which as at September 2007 stood at 22.7 per cent.[39] Third, efforts need to be made to 'correct the distortions that the apartheid policy created within the economy' such as the 'exclusion from the formal, "first" economy, the education and skills deficit of the majority of the population , the racially biased distribution of wealth, services and infrastructure and worsening poverty amongst the majority of its black population'.[40]

1.5 South Africa's Access to Knowledge Movement

The access to knowledge movement in South Africa gained significant momentum in 2004-5 with the commencements of the Access to Learning Material in Southern Africa (A2LMSA) project and the Commons-Sense Project. Several related projects have been established since, such as the African Access to Knowledge Alliance (AAKA). Many of these projects reach beyond the national borders of South Africa, aiming to accomplish a coordinated African approach.

[38] WJ Breytenbach 'The Presidencies of Nelson Mandela and Thabo Mbeki compared: implications for the consolidation of democracy in South Africa' (2006) 36 *Africa Insight* at 177.

[39] Statistics SA *Labour force survey – September 2007* (March 2008) at iv. Available at http://www.statssa.gov.za/publications/P0210/P0210September2007.pdf [Accessed 30 March 2009].

[40] B Khalima-Phiri supra note 7 at 4.

2. Doctrinal Analysis

2.1 Statutes and Regulations

The access to knowledge legislative landscape in South Africa, qualified as legislation and policy that impact access to knowledge positively or negatively, is substantial. We are however mindful of Winston Churchill's comment on the law: 'If you have ten thousand regulations you destroy all respect for the law.'[41] Attempting to translate this wisdom in the context of the following analysis, this study aims to examine only statutes and policies that are salient to the research hypotheses.

Legislation reviewed includes the Copyright Act of South Africa, the Intellectual Property Rights from Publicly Financed Research and Development Act, the Constitution of South Africa and the Electronic Communications and Transactions Act. A more recent policy, the Free and Open Source Software Policy, is also examined with regard to its potential impact on access to knowledge. In addition, a list of ancillary legislation that impacts specific aspects of access to knowledge is provided.[42] Finally, this section comments on which relevant international and regional treaties South Africa participates in.

2.1.1 Primary Legislation: The Copyright Act 98 of 1978

2.1.1.1 Historical Background

The road to the enactment of the Copyright Act 98 of 1978 ('Copyright Act') provides insight into South Africa's road from a self-governing Dominion of the British Empire, through the period of sanctions, to the democratic country we know today.

The current Copyright Act stemmed, in fact, from the British Copyright Act of 1911, which was enacted in South Africa under the title 'Imperial Copyright Act'. From the late 1940s onwards, South Africa experienced increasing international pressure as a result of its racial policies. More specifically, the 1980s saw many forms of sanctions. During this period a number of international treaties and instruments in the intellectual property field were entered into, including the International Convention for the Protection of Performers, Producers of

[41] http://www.worldofquotes.com/author/Sir-Winston-Churchill/1/index.html [Accessed 30 March 2009].

[42] Specific information was derived from the research supporting the 'Open review of the Copyright Act Project' and the corresponding project report, which project ACA2K country researchers Tobias Schonwetter and Pria Chetty participated in. Specific information has also been derived from the paper by Denise Nicholson and Dick Kawooya presented in 2008 at the World Library and Information Congress in Québec, Canada.

Phonograms and Broadcasting Organisation of 1961 (Rome Convention) and the Convention for Protection of Producers of Phonograms against Unauthorised Duplication of their Phonograms (Geneva Convention). The Berne Convention was revised at Stockholm in 1967 and Paris in 1971. In addition, the Universal Copyright Convention came into being. South Africa did not accede to any of these treaties, with the exception of the administrative provisions of the Paris text of the Berne Convention. The Berne Convention, which requires member countries to conform their copyright law to certain prescribed standards, has shaped the later amendments to the Copyright Act.

Specific requirements incorporated from the Berne Convention include:

i. that copyright be an automatic right

ii. that an author or creator obtains the right as soon as her work has been 'fixed' without the author having to declare or assert it

iii. an 'international reciprocation for copyright works' which means that a work that is created in one country is automatically protected by copyright in any other country that is also a signatory to the convention, and

iv. recognition of moral rights.

2.1.1.2 Compatibility with Access to Knowledge

As with other countries, the Copyright Act provides the foundation for the understanding and advancement of the legislative landscape for access to knowledge in South Africa. The specific topics for this research project's analysis of the Copyright Act are largely derived from the 'Commonwealth of Learning Copyright Audit',[43] which is an inquiry into whether, and to what extent, the copyright law of a country incorporates flexibilities that promote access to knowledge. Further and more generally, the analysis below considers aspects of the Copyright Act relevant to the understanding of the application of copyright in South Africa.

2.1.1.3 Eligibility for Copyright

In accordance with section 2 of the Copyright Act, the following original works are eligible for copyright in South Africa:

- literary works; musical works; artistic works; sound recordings; cinematograph films; broadcasts; programme-carrying signals; published editions, and computer programs.

[43] Prepared by Achal Prabhala and Tobias Schonwetter.

In addition to the requirement of originality, Section 2(2) requires works other than broadcasts and programme-carrying signals to be reduced to material format, i.e. written down, recorded, represented in digital data or signals or otherwise. A potential broadcast is not eligible for copyright until it is actually broadcast and a programme-carrying signal must be transmitted by satellite in order to qualify for copyright as per Section 2(2A).

The question of which works are eligible for copyright form an important backdrop to understanding the restrictions on the use of these works in which copyright is held, and in the converse, the exceptions to such restrictions which may promote access to knowledge.

2.1.1.4 Exclusive Rights

The Copyright Act vests exclusive rights – to do or authorise the doing of specific acts in South Africa in respect of the work concerned – with the copyright-holder. In the absence of a valid exception to the above rights, or permission from the copyright-holder, payment of royalties or fulfilment of required obligations necessary to contractually be granted rights to the work, the exercise of any of the exclusive rights by anyone other than the rights-holder qualifies as copyright infringement. An understanding and awareness of the exclusive rights of copyright-holders is important for users to ensure that their access and use of a work does not amount to copyright infringement. Whilst any of the works below may qualify as knowledge, literary works are the most important category for the purposes of this study, in the context of learning materials.

Section	Work	Exclusive Rights
6	Literary or Musical Works	(a) Reproduce; (b) Publish; (c) Perform; (d) Broadcast; (e) Transmit in a diffusion service unless such service transmits a lawful broadcast, including the work, and is operated by the original broadcaster; (f) Make an adaptation of the work; and

		(g) Do, in relation to an adaptation of the work, any of the acts specified in relation to the work in (a) to (e) above.
7	Artistic Works	(a) Reproduce; (b) Publish; (c) Include the work in a cinematograph film or a television broadcast; (d) Cause a television or other programme, which includes the work, to be transmitted in a diffusion service, unless such service transmits a lawful television broadcast, including the work, and is operated by the original broadcaster; (e) Make an adaptation of the work; and (g) Do, in relation to an adaptation of the work, any of the acts specified in relation to the work in (a) to (d) above.
8	Cinematograph Films	(a) Reproduce including making a still photograph; (b) Cause the film, in so far as it consists of images, to be seen in public, or, in so far as it consists of sounds, to be heard in public; (c) Broadcast; (d) Cause the film to be transmitted in a diffusion service, unless such service transmits a lawful television broadcast, including the film, and is operated by the original broadcaster; (e) Make an adaptation of the work; (g) Do, in relation to an adaptation of the work, any of the acts specified in relation to the work in (a) to (d) above; and (g) Let, or offer or expose for hire by way of trade, directly or indirectly, a copy of the film.
9	Sound Recordings	(a) Make, directly or indirectly, a record embodying the sound recording; (b) Let, or offer, or expose for hire by way of trade,

		directly or indirectly, a reproduction of the sound recording; (c) Broadcast the sound recording; (d) Cause the sound recording to be transmitted in a diffusion service, unless that diffusion service transmits a lawful broadcast, including the sound recording, and is operated by the original broadcaster; and (e) Communicate the sound recording to the public.
10	Broadcasts	(a) Reproduce; (b) Rebroadcast; and (c) Cause the broadcast to be transmitted in a diffusion service, unless such service is operated by the original broadcaster.
11	Programme Carrying Signals	Undertake or authorise, the direct or indirect distribution of such signals by any distributor to the general public or any section thereof in the Republic, or from the Republic.
11A	Published Editions	Make or authorise the making of a reproduction of the edition in any manner;
11B	Computer programs	(a) Reproduce; (b) Publish; (c) Perform; (d) Broadcast; (e) Cause the computer program to be transmitted in a diffusion service, unless such service transmits a lawful broadcast, including the computer program, and is operated by the original broadcaster; (f) Make an adaptation of the work; (g) Do, in relation to an adaptation of the work, any of the acts specified in relation to the work in (a) to (e) above; (h) Let, or offer or expose for hire by way of trade, directly or indirectly, a copy of the computer program.

2.1.1.5 Registration

Save for cinematograph films which may be registered at the copyright-holder's discretion (it is optional), copyright subsists automatically in all other works, provided that the work is eligible for copyright. Registration of copyright in cinematograph films is provided for by the Registration of Copyright in Cinematograph Films Act 62 of 1977. By comparison, where the formality of registration of a work is not exercised in the case of trademarks and patents, such works fall into the public domain resulting in accessibility to such work by the public, in the absence of authorisation from the rights-holder or payment of any royalties or fees. Copyright, however, subsists automatically which, in turn, limits the works that may otherwise flow into the public domain.

2.1.1.6 Term of Copyright

The term of copyright is dealt with in Section 3 of the Act. Copyright in literary or musical works or artistic works other than photographs subsists for the duration of the life of the author plus 50 years from the end of the year in which the author dies. If before the death of the author no (1) publication, (2) public performance, (3) offer for sale to the public of records, or (4) broadcasting of the work has been done, the term of copyright continues for fifty years from the end of the year in which such act is done.

The copyright protection term for cinematograph films, photographs and computer programs is fifty years from the end of the year in which the work (1) is made available to the public with the consent of the owner of the copyright; or (2) is first published, whichever term is the longer. If the work is neither made available to the public nor published within fifty years of the making of the work, the copyright term is 50 years from the end of the year in which the work is made.

Copyright in sound recordings subsists for 50 years from the end of the year in which the recording is first published. The copyright protection term for broadcasts is 50 years from the end of the year in which the broadcast first takes place. Programme-carrying signals are copyright protected for 50 years from the end of the year in which the signals are emitted to a satellite.

Lastly, published editions are copyright protected for 50 years from the end of the year in which the edition is first published

The copyright term applicable to the above works impacts the date on which such works fall within the public domain, and may therefore be used freely, i.e. without authorisation from the copyright-holder or the payment of any fees. While the term of copyright in South Africa is less than in the European Union and United States, a lesser copyright term, perhaps with the option of further renewal terms, could result in a knowledge-related work falling into the public domain sooner; such a scheme could, therefore, promote access to such work.

In recommending legislative changes to the term, however, it is important to consider that under the Berne Convention the signatory states (including South Africa) are required to provide copyright protection for a minimum term of the life of the author plus 50 years. However, as there is nothing currently preventing legislation that makes the registration of copyright compulsory at some early stage (and after the initial automatic vesting), it would be an important consideration to further access to knowledge, as, in the absence of renewal of registration – but during the term as specified under the Berne Convention – such works would fall in to the public domain.

Section 3(3) states that in the case of anonymous or pseudonymous works, copyright subsists for 50 years from the end of the year in which the work is made available to the public with the consent of the owner of the copyright or from the end of the year in which it is reasonable to presume that the author died, whichever term is the shorter. By comparison, in the United States the term of protection for anonymous or pseudonymous works is 120 years from date of creation. As with the other categories of works, a lesser term of copyright in anonymous or pseudonymous works may result in improved access to knowledge resources.

2.1.1.7 Orphan Works

‘Orphan works’ are works that are still copyright-protected but for which the copyright holder is not identifiable or not locatable. Whilst the copyright holder of an orphan work is entitled to the benefits of copyright, the fact that the owner is unknown prevents any transaction to secure the rights to use the work. In South Africa, the problem of orphan works is not sufficiently discussed at the moment. In other countries and regions where discussions of the

issue have reached an advanced stage, however, solutions were proposed that could also work for South Africa. For instance, the Copyright Act could be amended to permit use of orphan works on reasonable terms when copyright owners cannot be identified or located to negotiate voluntary licenses. Some countries require, for example, a reasonable investigation into the identity of the copyright owner. Other solutions are, however, available and at this point it seems most important that the South African lawmaker realises the need to address the problem in the first place.

2.1.1.8 Moral Rights

In compliance with the Berne Convention, Section 20 of the Copyright Act provides for the protection of moral rights, i.e. the right to claim authorship as well as the right to object to any distortion, mutilation or other modification of the work where such action is or would be prejudicial to the honour or reputation of the creator. Specific concerns with moral rights include (i) that the inability to locate the author (as in the case of orphan works) to attribute the work to the author and the resulting fear of violation of a moral right may at times result in a decision not to use a work, thereby negatively impacting use of such work and (ii) the lack of clarity on the definition of moral rights among copyright stakeholders. While the concerns regarding orphan works were discussed above, the second concern may be addressed in legislative amendment to the definition.

2.1.1.9 Specific Provisions for Libraries or Archives

The current Copyright Act Regulations contain specific provisions for Libraries and Archives.[44] Libraries and Archives play an important role where learners are unable to afford personal copies of learning materials and rely on libraries to access such learning materials. Thus, any (unreasonable) restriction on libraries and archives has a directly negative impact on access to learning materials.

Section 3 of the Copyright Regulations stipulates that a library or archives depot (or any of its employees acting within the scope of their employment) may reproduce a work and distribute a copy if:

- the reproduction or distribution is made for non-commercial purposes;

[44] Section 3 of the Copyright Act 1978 Regulations as published in GN R1211 in GG 9775 of 7 June 1985 as amended by GN 1375 in GG 9807 of 28 June 1985.

- the collections of the library or archive depot is open to the public or available to researchers;
- the reproduction of the work incorporates a copyright warning.

Section 3 of the Copyright Regulation further states the conditions under which an unpublished work may be reproduced and distributed for preservation, for security or for deposit purposes in other libraries and archive depots. In addition, Section 3 generally allows the reproduction of a published work for the purpose of replacement of a copy that is deteriorating or that has been damaged, lost or stolen, if an unused replacement cannot be obtained at a fair price.

Most importantly, however, Section 3 of the Copyright Regulations stipulates that copies from the collection of a library or archive depot may be made for users upon request from the users or another library or archive depot. Such copies are confined to one article or other contribution to a copyrighted collection or periodical issue, or to a copy of a reasonable portion of any other copyrighted work. In addition, the library or archive depot must have a notice that that the copy is not going to be used for purposes other than private study or personal or private use.

Lastly, Section 3 of the Copyright Regulations allows, upon request, the copying of an entire work or substantial parts of it by a library or archive depot for their users and other libraries or archive depots if an unused copy of the copyrighted work cannot be obtained at a fair price. Section 3 requires, however, that (1) the copy must become the property of the user, and (2) the library or archive depot has had no notice that the copy would be used for purposes other than private study or the personal or private use of the person using the work.

The Copyright Regulations are problematic for a number of reasons. Crucial terms such as 'reasonable portion' are often not defined and the requirements for specific copyright exceptions and limitations appear overly restrictive. It is for these reasons that the general usefulness of these provisions has been doubted.[45] It seems that from a practical point of view, the adoption of more specific guidelines is necessary, especially for the key issue of multiple copying. With regard to libraries, it becomes clear from the cited provision that under the reg-

[45] DJ Pienaar *Statutory defences against actions for infringement of copyright* LL.M. thesis University of South Africa (1988) at 95-7.

ulations libraries may not translate, adapt or convert material into other formats. In essence, digitisation of works by the libraries for access by users is not addressed. In addition libraries do not have the necessary clarity on whether they may distribute works in a digital format within the allowed reproduction and distribution purported in the regulations.

2.1.1.10 Specific Provisions in Respect of Sensory Disabilities

The Act does not include specific provisions that deal with the needs of sensory disabled people. This is problematic from an access to learning material perspective because people with sensory disabilities face additional barriers to access to learning materials by virtue of their disability. As a result, the law should make special provisions to enhance their access to learning materials. However, whether or not there should be a provision for conversion of a book into Braille without seeking permission from or paying royalties to the rights-holder of that book, when such a book is for use by a blind learner, is a contentious issue.

2.1.1.11 Specific Provisions for Educational Purposes

Specific provisions for educational purposes have marked relevance for access to learning materials because it is these provisions that stipulate how copyright protected works may be used for learning purposes.

- Section 12(4) of the Act provides that the work may be used 'to the extent justified by the purpose, by way of illustration in any publication, broadcast or sound or visual record for teaching: Provided that such use shall be compatible with fair practice and that the source shall be mentioned, as well as the name of the author if it appears on the work'.
- Translation for educational use is allowed.
- Section 13 of the South African Copyright Act (Regulations) has specific exceptions for educational purposes. According to this section: the Act permits the making of limited numbers of copies of works for personal use, study, research, and teaching, without having to apply for copyright permission.
- Having regard to the totality and meaning of a work, one copy of a reasonable and necessary portion of a work, consistent with fair practice, can be made without permission.[46] One copy of a 'reasonable portion' per student per course, may be made

[46] Section 2(a) of the Regulations.

by or for a lecturer for classroom use or discussion.[47] This is subject to the stipulation that the 'cumulative effect of the reproductions does not conflict with normal exploitation of the work to the unreasonable prejudice of the legal interest and residuary rights of the author.'[48]

- A student / researcher may make a single copy – of a reasonable portion – for the purpose of research or private study provided that the use is reasonable, the copy is made by the student or researcher himself/herself or by a librarian in his/her stead and he/she does not disseminate the copy or make the copy available to anyone else.[49]

The exceptions provided for in the regulations present a few challenges. Firstly, what constitutes a 'reasonable portion' is unclear and necessitates an individual interpretation by librarians and other affected persons. Students would therefore be unsure of how much they could lawfully photocopy. In most instances, when people are uncertain of their rights they tend to err on the side of caution, so a student interested in following the law would most likely copy only a very small portion of the work.

In respect of the copy permitted, only one copy may be made and this copy may not be made by one person on behalf of another. This particular provision does not facilitate productive distance learning (where learners are not in possession of the original copy in order to exercise the right granted under the regulations).

2.1.1.12 Media Freedom and Expression

The review of copyright protected works in media is in fact permitted under the South African Copyright Act.

- Section 12(1)(b) of the Act allows reproduction for review and criticism of literary and musical works and is applied to other works: artistic works, cinematograph films, sound recordings, broadcasts, published editions and computer programs.
- Section 12(8)(a) of the Act provides that '[n]o copyright shall subsist in […] speeches of a political nature'.

[47] Section 2 and Section 7 of the Regulations.

[48] Section 2(b) of the Regulations.

[49] Section 2 of the Regulations.

- Section 12(6)(a) of the Act provides that 'copyright in a lecture, address or other work of a similar nature which is delivered in public shall not be infringed by reproducing it in the press or by broadcasting it, if such reproduction or broadcast is for an informatory purpose'
- Section 12(3) of the Act permits quotation of literary and musical works; the provisions of Section 12(3) are applied to other works: cinematograph films, sound recordings, broadcasts and computer programs.
- Section 12(1)(c) of the Act provides that copyright shall not be infringed by any fair dealing with a literary or musical work for the purpose of reporting current events in a newspaper, magazine or similar periodical; or by means of broadcasting or in a cinematograph film. The provisions of Section 12(1)(c) are applied to other works: artistic works, cinematograph films, sound recordings, broadcasts, published editions and computer programs.
- Section 19 of the Act provides that copyright in programme-carrying signals shall not be infringed by the distribution of short excerpts of the programme so carried that consist of reports of current events; or as are compatible with fair practice, and to the extent justified by the informatory purpose of such excerpts. These provisions do not apply to programmes that consist of sporting events.

2.1.1.13 Remixing

A remix is an adaptation of a work, more popularly used in the context of musical works. In the context of musical works, remixing results in the creation of new songs and new recordings of songs. Section 14 of the Act sets out a statutory licensing scheme which permits remixing, provided that statutory notice is given and prescribed royalties are paid. This permission pertains, however, to a very specific segment of users – persons designated as 'manufacturers' who intend to sell the record by retail, or supply it for the purpose of resale by retail, to another person, or to use it for making other records to be sold or so supplied – rather than the general public. Otherwise, a person intending to remix a work must obtain permission from the copyright-holder. ICTs present numerous formats for works and the opportunity for ease of remix. The remix of a work may however be limited in the situation that the copyright-holder is unknown (referencing an earlier discussion on orphan works). More notably however, the remixing or adaptation of a work from print to Braille, for persons with sensory disabilities, is not provided for in the Copyright Act – and this negatively

impacts access to knowledge by the sensory-disabled.

2.1.1.14 Overview of the Exceptions and Limitations

The following is a list of the exceptions to copyright infringement as provided for in the Copyright Act, Sections 12-19B:

- Section 12 of the Copyright Act permits 'fair dealing'[50] or that use of a copyrighted work 'for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright.'
- Uses related to judicial proceedings;
- Quotations;
- Uses by way of illustration for teaching;
- Ephemeral reproductions by a broadcaster;
- Reproductions or broadcasts of works delivered in public for informatory purposes;
- Reproductions or broadcasts of an article on current events;
- Uses relating to official texts of a legislative, administrative or legal nature; political and legal speeches; news of the day that are mere items of press information;
- Demonstrations of technical equipment by a dealer in such equipment, sections;
- Broadcasts of residual works;
- Reproductions permitted by regulations;
- Special exception in respect of records of musical works;
- Background or incidental use of artistic material in a cinematograph film, television broadcast or transmission in diffusion service;
- Reconstruction of a work of architecture;
- Reproduction or inclusion of artistic works, situated in public places, in a cinematograph film, television broadcast or transmission in a diffusion service;

[50] According to Section 2(1) of the Copyright Act 98 of 1978, whether a use is 'fair dealing' is based on the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes; the nature of the work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; the effect of the potential market for or value of the copyrighted work. The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

- Three-dimensional reproductions or adaptations of authorised three-dimensional reproductions of artistic works for utilitarian purposes by an industrial process;
- Use of a record which embodies literary and musical works which are also embodied in a sound-track;
- Distribution of short excerpts from program-carrying signals; and
- Back-up copies of computer programs.

2.1.1.15 Anti-circumvention Provisions

The South African Copyright Act does not contain any provisions prohibiting the circumvention of technological protection measures. South Africa is not obliged to introduce such provisions since it has not yet ratified the WIPO Internet treaties which established such an obligation. Having said this, the Electronic Communications and Transactions (ECT) Act of 2002 contains a provision that can be interpreted as an anti-circumvention provision. This provision is discussed in the subsection dealing with the ECT Act.

2.1.1.16 Parallel Importation

A parallel import refers to a copyright protected product placed on the market in one country, which is subsequently imported into a second country, without the permission of the copyright holder in the second country. The relationship between parallel import and access to knowledge lies in the extent to which parallel import of, say, a mathematics textbook, can make such a textbook more affordable in a country where it is otherwise unaffordable. It is important to not confuse this with piracy, because there has been due compensation to the rights-holder in the country of sale, and the textbook is merely subsequently traded. For this reason, TRIPs sanctions the parallel import of an essential textbook (or any other copyright good). In South Africa, section 28 of the Copyright Act provides that the owner of any published work or the exclusive licensee of a published work (with the right to import such work into South Africa) may request to the Commissioner of Customs and Excise to declare any other importation of the work prohibited.

This provision is not required by TRIPS and otherwise prevents the positive impact (both directly and indirectly, through competition) that the parallel import of learning materials may have on access to knowledge.

2.1.1.17 Non-voluntary (Compulsory and Statutory) Licences

Uses that are authorisation-free but against a fixed remuneration fall into the category of so-called statutory licences. If both an authorisation and payment of remuneration is required but also an obligation exists for the copyright holder to give permission for the use in question, then one speaks of compulsory licences. Statutory and compulsory licences can be grouped under the more general term 'non-voluntary licences'. South Africa's Copyright Act addresses non-voluntary licensing only in a very few instances. More precisely, copyright is not infringed if an act is conducted in compliance with a compulsory licence granted by the South African Copyright Tribunal, for which provision is made in sections 29-36 of the South African Copyright Act. The function of the Tribunal is to determine disputes arising between licensing bodies, or other persons from whom licences are required and persons requiring licences.[51] The Tribunal will grant a licence where the refusal to do so by the copyright holder is unreasonable. In addition, section 45 of the Copyright Act could form the basis for future non-voluntary licence schemes as it allows regulations by the Minister in respect of circulation, presentation or exhibition of any work or production. These regulations may empower any person specified therein to prohibit or authorise the circulation, presentation or exhibition of such work on such conditions as may be specified which shall not constitute copyright infringement. Section 45, however, makes it clear that the author must not be deprived of his right to a reasonable remuneration determined in accordance with the agreement applicable, failing which by arbitration.

Further compulsory licensing, eg, for orphan works (as possible in Canada and elsewhere), is not provided for under the South African Copyright Act.

2.1.2 Intellectual Property Rights from Publicly Financed Research and Development Act 51 of 2008

Legislation addressing intellectual property rights from publicly financed research was published in the Government Gazette December 2008 and is therefore a recent addition to the intellectual property legislative landscape in South Africa.

The legislation primarily intends to provide for more effective utilisation of intellectual property emanating from publicly financed research and development; to establish a National

[51] Section 30 of the Copyright Act.

Intellectual Property Management Office (NIPMO) and Intellectual Property Fund; and to provide for the establishment of offices of technology transfer at the relevant institutions. Institutions that fall within the scope of application of the legislation include universities and public research institutes such as the Medical Research Council, the Human Sciences Research Council, the South African Bureau of Standards and the Water Research Commission.

'Intellectual property' is qualified under the legislation as any creation of the mind that is capable of being protected by law from use by another person, whether in terms of South African law or foreign intellectual property law, and includes any rights in such creation, but excludes copyrighted works such as a thesis, dissertation, article, handbook or other publication which, in the ordinary course of business, is associated with conventional academic work.

A 'recipient' under the Act refers to a person, juristic or otherwise, that undertakes research and development using funds allocated by the State or State organ or agency with the exception of funds allocated for scholarships and bursaries. The term 'commercialisation' refers to the process by which any intellectual property emanating from publicly financed research and development is or may be adapted or used for any purpose that may provide any benefit to society or commercial use on reasonable terms.

Salient points under the legislation may be summarised as follows:

- A recipient has a choice regarding retention of ownership of intellectual property emanating from publicly financed research and development but in the case of electing not to retain ownership, subject to certain conditions, such ownership will either fall into the hands of NIPMO, or a private organisation that provided funding, or the intellectual property creator as per section 4 of the Act.
- A recipient has specific obligations and disclosure duties including ensuring that intellectual property emanating from the aforementioned funds is appropriately protected before the results of such research and development are published or publicly disclosed by other means as per section 5(b).

- A recipient is charged with assessing the intellectual property to determine whether it merits statutory protection and, where appropriate, apply for and use best efforts to obtain statutory protection in its name as per Section 5(d).
- A recipient is also Section 11(a)(b) provides for a preference to non-exclusive licensing and to Broad-Based Black Economic Empowerment (BBBEE) entities.
- Section 11(e) provides that the State must be granted an irrevocable and royalty-free licence authorising the State to use the intellectual property anywhere in the world for health, security and emergency needs of South Africa.
- Section 5 (g) confers on recipients the duties to licence and otherwise transfer rights in respect of the pertinent intellectual property as well as manage commercialisation of the intellectual property.
- Affected institutions must establish technology transfer offices as per section 6 of the Act.
- Intellectual property creators and their heirs are granted specific rights to portions of revenues accrued to the institution as per Section 10 of the Act.

Of importance is the framework of conditions created by Section 11 of the legislation in respect of intellectual property transactions. While the recipient may determine the nature and conditions of such transactions, certain factors must be taken into account:

According to Section 12(2), a recipient wishing to undertake an intellectual property transaction offshore, in the form of an assignment or exclusive licence, must satisfy the National Intellectual Property Management Office (NIPMO) that:

- There is insufficient capacity in the Republic to develop or commercialise the intellectual property locally; and
- The Republic will benefit from such offshore transaction.

The legislation potentially negatively impacts access to knowledge to the extent that the legislation (i) does not support publicly funded research falling into the public domain; and (ii) establishes a regime that may not be endorsed by research partners in other countries which may frustrate international research collaborations., (iii) is likely to result in significant delays for the publication of research.

Although the Act excludes many kinds of copyright protected works by excluding these works from the definition of 'intellectual property' in Section 1, the Act defines intellectual property in such a way that it could be read to prohibit granting access to databases, software, and medical diagnostic methods. It also prohibits the disclosure of research while it is scrutinised for patentability by bureaucrats who are unlikely to be experts in the research field in question. This may result in significant delays in local knowledge becoming available. This is an issue of particular concern in respect of neglected diseases, and other knowledge fields where local research is critical to development.

Some commentators suggest that the Intellectual Property Rights from Publicly Financed Research and Development Act, together with its Regulations, may even be unconstitutional.[52] This is because the Constitution of South Africa provides in its Section 16(1) that '[e]veryone has the right to freedom of expression, which includes – […] (d) academic freedom and freedom of scientific research.' This freedom may, however, be compromised if South Africans, as a result of the Act and its Regulations, can no longer participate in important international research consortia. Having said this, the Act and its Regulations do not directly proscribe access to copyright protected works in South Africa as the Act expressly excludes scholarly copyright protected works from its scope.

Yet, if it turns out to be true – as feared by some – that the introduction of the Act and its Regulation will result in less research being generated in South Africa, then, inevitably, less research-related writing will be published in South Africa, which is problematic from an access to knowledge perspective. More generally, by merely focussing on the potential financial rewards from intellectual property creation, the new legislation seemingly disregards the many other advantages that intellectual property creation brings about for society as a whole. And by re-enforcing a protectionist culture in relation to intellectual property it certainly conflicts with the principles of openness and access that are investigated in this report. The Act and Regulations have not been put in force at the time of writing of this report.

2.1.3 The Supreme Law of the Land: The Constitution of South Africa

[52] R Kahn 'Draft Intellectual Property Bill could be the end of South African scientific research' (2009). Available at http://sacsis.org.za/site/News/detail.asp?iData=295&iCat=1446&iChannel=1&nChannel=News [Accessed 6 July 2009].

The South African Constitution Act 108 of 1996, being the supreme law of the land, supersedes all other laws in the Republic. In respect of the supremacy of the Constitution, the 'Founding Provisions' state that the 'Constitution is the supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled.'

The rights below, contained in the Constitution's Bill of Rights, are therefore crucial considerations in shaping the right of access to knowledge by a judiciary:

2.1.3.1 Right to Equality

This right is particularly relevant in the context of the legislative exceptions that could be introduced into the Copyright Act and other acts to fulfil equal rights of access to education for disabled persons as well as equal rights of access to education for men and women.

Section 9 of the Constitution provides that 'everyone is equal before the law and has the rights to equal protection and benefit of the law' and that 'equality includes the full and equal enjoyment of all rights and freedoms. To promote the achievement of equality, legislative and other measures designed to protect or advance persons, or categories of persons, disadvantaged by unfair discrimination may be taken.'

Further the section provides that 'the State may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.'

Under Section 16 of the Constitution, and of importance to access to knowledge specifically, everyone has the right to freedom of expression, which includes the freedom to receive or impart information or ideas; academic freedom and freedom of scientific research.[53]

2.1.3.2 The Right to Education[54]

[53] Section 16(1).

[54] Section 29.

The Constitution provides in Section 29 that everyone has the right to a basic education, including adult education and to further education which the state through reasonable measures must make progressively available and accessible.[55]

Arguably, this section, as with other socioeconomic rights in the Constitutional Bill of Rights, puts a positive duty on the state to realise the right. An important aspect of the right to education is the right to access learning materials, a necessary condition required to fulfil the right to education. Whilst section 12(1) of the Copyright Act provides that fair dealing in a work for the purpose of research or private study is not an infringement of copyright, this exception to copyright infringement is useful only in the case of learners making copies of a portion of a copyright work for individual use; it does not address the case of learners who do not even have access to original learning materials in order to make copies for themselves. A possible change in the Copyright Act would clarify whether teachers may make copies of a work for and on behalf of students where such work will be used for research or private study.

In respect of the possible need for an exception under the Copyright Act for translation of works into a language of choice, it is useful to note that under the South African Constitution, everyone has the right to receive education in the official languages of their choice in public educational institutions, where that education is reasonably practicable.

Another important clause of the Constitution is in respect of the interpretation of other laws in the country. Section 39(2) provides as follows: 'When interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights.'

It is therefore required that any and every piece of legislation be interpreted in accordance with the intentions of the Bill of Rights, rather than against it. This makes the rights detailed above (which relate to access to knowledge) an important interpretative reference in giving meaning to the other legislation.

[55] Section 29 (1).

With regards to the reach and application of the Bill of Rights, it applies to all law, and binds the legislature, the executive, the judiciary and all organs of state.[56] The Bill of Rights binds a natural or a juristic person if, and to the extent that, it is applicable, taking into account the nature of the right and the nature of any duty imposed by the right.[57]

2.1.4 Electronic Communications and Transactions Act 25 of 2002

The Electronic Communications and Transactions Act 25 of 2002 ('ECT Act') may have the effect of overriding certain copyright exceptions and limitations, including the fair dealing provisions, contained in the Copyright Act[58] and may attach criminal liability for use of a work that is legitimated by the Copyright Act.

Section 86(3) of the ECT Act states that:

> a person who unlawfully produces, sells, offers to sell, procures for use, designs, adapts for use, distributes or possesses any device, including a computer program or a component, which is designed primarily to overcome security measures for the protection of data, or performs any of those acts with regard to a password, access code or any other similar kind of data with the intent to unlawfully utilise such item to contravene this section, is guilty of an offence.

Section 86(4) states: 'A person who utilises any device or computer program mentioned in subsection (3) in order to unlawfully overcome security measures designed to protect such data or access thereto, is guilty of an offence.'

By way of protecting data, section 86 of the ECT Act essentially prohibits the anti-circumvention of technological measures designed to protect copyright protected material in digital form. This protection is remarkably comprehensive and ultimately even exceeds the

[56] Section 8(1).

[57] Section 8(2).

[58] See the discussion by T Pistorius 'Developing countries and copyright in the information age - the functional equivalent implementation of the WCT' (2006) 2 *Potchefstroom Electronic Law Journal*. Available at http://www.puk.ac.za/opencms/export/PUK/html/fakulteite/regte/per/issues/2006_2__Pistorius_art.pdf [Accessed 30 March 2009].

protection of technological protection measures required by the WIPO Internet treaties and granted in most other countries.

2.1.5 The Counterfeit Goods Act 37 of 1997

The Act introduced measures against the trade in counterfeit goods so as to further protect owners of copyright (as well trademarks and other marks) against the unlawful application, to goods, of the subject matter of their respective intellectual property rights and against the release of such goods 'counterfeit goods' into the channels of commerce. As per Section 2(1), offences under the Act include:

- counterfeit goods being in the possession or under the control of any person in the course of business for the purpose of dealing in those goods,
- the manufacturing, producing or making of counterfeit goods other than for private or domestic use,
- the selling, hiring out, bartering or exchanging of counterfeit goods or the offering or exposing for sale thereof,
- exhibiting of counterfeit goods in public for the purpose of trading therein,
- distributing counterfeit goods for the purpose of trading therein or for any other purpose to the detriment of the owner of an intellectual property right,
- importing or exporting into or through the borders of South Africa other than for private and domestic use; and
- disposing of counterfeit goods in any manner in the course of trade.

A person who performs or engages in any act or conduct prohibited by subsection 2(1) will be guilty of an offence if –

> (a) at the time of the actor conduct, the person knew or had reason to suspect that the goods to which the act or conduct relates, were counterfeit goods; or
>
> (b) the person failed to take all reasonable steps in order to avoid any act or conduct of the nature contemplated in subsection (1) from being performed or engaged in with reference to the counterfeit goods.

The PASA website (www.publishsa.co.za) aptly contextualises the Counterfeit Goods Act in respect of learning materials and the relationship between the Copyright Act and the Counterfeit Goods Act as follows:

> The Counterfeit Goods Act could render the making and sale of unauthorised copies of a book an act of dealing in counterfeit goods. The Counterfeit Goods Act gives wide ranging powers of search and seizure to inspectors (police officers, customs officials, and the inspectors appointed by the Department of Trade and Industry). The Counterfeit Goods Act has certain advantages over the Copyright Act[:] the mere possession of counterfeit goods in the course of trade is a criminal offence, whereas under the Copyright Act in equivalent circumstances proving that the goods have been made and/or sold by the accused is necessary before an offence can take place.

Whilst the Counterfeit Goods Act offers publishers the advantage of increased protection, the opposite effect is achieved in respect of users of learning materials. The stringency of the Counterfeit Goods Act and the additional offences imposed by the legislation enhances the exposure of users of learning materials to possibilities of legal sanction where the exceptions under the Copyright Act are insufficient for the purposes of accessing learning materials.

It should be noted that under the Counterfeit Goods Act, any person convicted of an offence, will: (i) for a first conviction, be punishable with a fine in respect of each article or item, which may not exceed R5 000 per article or item, or imprisonment for a period that may not exceed three years, or both or (ii) for second or subsequent conviction the fine in respect of each article or item may not exceed R10 000 per item or article and imprisonment may not exceed five years. As an incentive, any person who submits any counterfeit goods purchased by him to an inspector together with the proof of the price that was paid for these goods, will be entitled to receive payment of the sum of money equal to three times the amount of the price under certain circumstances.

2.1.6 Free and Open Source Software (FOSS) Policy

On 22 February 2007 the South African Cabinet approved a policy and strategy for the adoption in government of Free and Open Source Software, or 'FOSS'. In summary, all new software developed for or by the government will, in future, be based on open standards, and

government will migrate all current software to FOSS. Whilst the policy refers specifically to the adoption of FOSS in government, this decision will impact on the use of FOSS in South Africa, as it will encourage all entities engaging with government to use compatible software.

The FOSS policy of South Africa has positive implications for access to knowledge. By endorsing open source software and open standards, the intention is to lower barriers for accessing information and communication technologies.

According to the policy:

1) The South African Government will implement FOSS unless proprietary software is demonstrated to be significantly superior. Whenever the advantages of FOSS and proprietary software are comparable FOSS will be implemented when choosing a software solution for a new project. Whenever FOSS is not implemented, then reasons must be provided in order to justify the implementation of proprietary software.
2) The South African Government will migrate current proprietary software to FOSS whenever comparable software exists.
3) All new software developed for or by the South African Government will be based on open standards, adherent to FOSS principles, and licensed using a FOSS licence where possible.
4) The South African Government will ensure all government content and content developed using government resources is made Open Content, unless analysis on specific content shows that proprietary licensing or confidentiality is substantially beneficial.
5) The South African Government will encourage the use of Open Content and Open Standards within South Africa.[59]

If implemented successfully, the policy may address barriers to access to ICTs as experienced by schools and libraries. For example, it is hoped that the barrier posed by the high licensing

[59] Policy on free and open source software use for South African Government. Available at http://www.oss.gov.za/FOSS_OC_POLICY_2006.pdf [Accessed 30 March 2009].

fees associated with proprietary library systems in developing countries may be alleviated by the use of FOSS.[60]

It is submitted, however, that in order to more fully realise the benefits of such a policy, corresponding legislative amendments pertaining to access to the learning materials housed on such ICTs should also be considered. In addition, the government will need to ensure that FOSS is compatible with the policies embedded in related legislation, such as the Copyright Act. This is because incompatible polices in related legislation may result in FOSS being ineffective.

2.1.7 Other Legislation

2.1.7.1 Promotion of Access to Information Act 2 of 2000

The address of then Deputy President Thabo Mbeki at the Consultative Workshop of Freedom of Information Legislation at Johannesburg on 28 November 1994 clarified the importance of access to information in the context of access to knowledge. He urged the delegates attending as follows: 'Let what you do also contribute to ensuring that the people as a whole gain access to knowledge so that they have the power to reconstruct and develop their lives and their society in an informed, conscious and purposive manner.'[61]

The 'Freedom of Information Legislation' referred to was enacted as the Promotion of Access to Information Act 2 of 2000 ('PAIA'). The Preamble of the PAIA states that the purpose of enactment of the PAIA is to foster a culture of transparency and accountability in public and private bodies by giving effect to the right of access to information; and to actively promote a society in which the people of South Africa have effective access to information to enable them to more fully exercise and protect all of their rights. While the concept of access to information is not synonymous with and must not be confused with access to knowledge, the

[60] eIFL 'OSI core funding for eIFL FOSS'. Available at http://www.eifl.net/cps/sections/services/eifl-foss/briefings/osi-funding-for-eifl [Accessed 30 March 2009].

[61] Address of Deputy President Thabo Mbeki at the consultative workshop of freedom of information legislation (28 November 1994). Available at http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F1994%2F181095003.htm%40Gov&q=(+((mbeki)%3CIN%3ETitle)+)+%3CAND%3E(+Category%3Cmatches%3Es+)&t=T+MBEKI%3A+CONSULTATIVE+WORKSHOP+OF+FREEDOM+OF+INFORMATION+LEGISLATION [Accessed 30 March 2009].

importance of information to enable the meaningful exercise of rights is akin to the importance of knowledge in its relation to the right to education.

2.1.7. 2 National Archives and Records Service Act 43 of 1996

Archives are a source of learning materials for some disciplines, and as such, any regulation of archives is of significance to access to learning materials. The main legislation regulating archives is the National Archives and Records Service Act. According to section 3 of this Act, the objectives of the National Archives are to

> preserve public and non-public records with enduring value for use by the public and the State; make such records accessible and promote their use by the public; ensure the proper management and care of all public records; collect non-public records with enduring value of national significance which cannot be more appropriately preserved by another institution, with due regard to the need to document aspects of the nation's experience neglected by archives repositories in the past.

2.1.7.3 Legal Deposit Act 54 of 1997

The Legal Deposit Act 54 of 1997 provides for the preservation of the national documentary heritage through legal deposit of published documents; to ensure the preservation and cataloguing of, and access to, published documents emanating from, or adapted for South Africa: to provide for access to government information; to provide for a Legal Deposit Committee; and to provide for matters connected therewith. The extent to which the Legal Deposit Act promotes ease of access to the published documents is an important consideration. As with other legislation in South Africa that pertains to repositories of information, specific permissions, such as the permission to reformat the published editions available, are not present.

2.1.7.4 South African Library for the Blind Act 91 of 1998

Section 4(1) of the South African Library for the Blind Act 91 of 1998 states that the functions of the Library for the Blind are:

(a) to build up a balanced and appropriate collection of South African and other documents for the use of blind and print-handicapped readers;

(b) (i) to record its collections appropriately;

(ii) to provide a bibliographic service to those readers;

(c)to provide access to documents nationally and internationally to those readers;

(d) to provide library and information services on a national basis to those readers;

(e) to co-ordinate and preserve the national audio and Braille literary heritage;

(f) to produce documents in special mediums such as Braille and audio in the formats required by those readers;

(g) to develop standards for the production of those documents;

(h) to research production methods and technology in the appropriate fields; and

(i) to acquire, manufacture and disseminate the necessary technology required to read, replay or reproduce the media referred to in paragraph (f).

In view of the responsibilities outlined above, the Library for the Blind may be considered an important part of the promotion of access to knowledge to sensory-disabled persons. The ability to produce documents for blind persons in Braille and audio formats may, however, be inhibited by the lack of corresponding legislative provision for such reformatting.

2.2 International Treaties and Agreements

South Africa's obligations under international treaties and agreements may be summarised as follows:

- In 1928, South Africa became a signatory of the Berne Convention for the Protection of Literary and Artistic Works.
- There is no evidence of South Africa's signature to the Berne Convention's Appendix.[62]
- As a WTO member, South Africa is a party to the Agreement on Trade Related Aspects of Intellectual Property (TRIPS) of 1994.

[62] The Berne Appendix provides that under certain circumstances – and subject to the compensation of the rights holder – for a system of non-exclusive and non-transferable non-voluntary licences in developing countries regarding (a) the translation for the purposes of teaching, scholarship or research, and for use in connection with systematic instructional activities and (b) the reproduction of works protected under the Berne Convention.

- South Africa is signatory to both the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) of 1996.
- South Africa is not a party/signatory to one of the other relevant international treaties such as the Universal Copyright Convention of 1952; the 1961 Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations; the Geneva Convention for the Protection of Producers of Phonograms Against Unauthorised Duplication of Their Phonograms; or the Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite.

Of course, international treaties are not binding locally unless they have been ratified and incorporated into domestic legislation. In light of this, it is important to note that South Africa has not yet ratified either the WCT or the WPPT. Having said this, South African law nonetheless complies with and arguably exceeds the essential obligations contained in these treaties to legally protect technological protection measures. Interestingly, however, this protection is not afforded by the Copyright Act but – maybe accidentally – by the Electronic Communications and Transactions Act.

It seems noteworthy in this context that free trade negotiations between the United States and the Southern African Customs Union (SACU)[63] have stalled for now, partly because of the demands made by the United States in relation to intellectual property rights protection. In light of the experiences from other countries, Free Trade Agreements with the United States usually impose strict copyright protection regimes with significant implications for copyright and access to knowledge.

2.3 Regional Treaties

There are no cooperative copyright treaties within the SADC region, nor is there any harmonisation of copyright laws in the Southern African region.

2.4 Judicial and Administrative Decisions

There are many reported cases on copyright in South Africa; however, there is a dearth of case law on copyright infringement related to learning materials. This is surprising in view of the fact that the publishing industry estimates the extent of copyright infringement in relation

[63] The five members of SACU are South Africa, Lesotho, Botswana, Namibia and Swaziland.

to learning materials as quite high. For example, in 2002, it was estimated by the then-President of PASA that 'approximately 40-50 per cent of the potential R400-million market [wa]s lost to piracy and illegal photocopying'.[64] This is said to affect mostly international works and the copyright infringers are identified as students; educational institutions which issue course packs with infringing material; and copy-shop owners.[65]

Before proceeding to discuss litigation that is directly related to learning materials, it is instructive to briefly survey general copyright infringement case law. This serves two purposes. First, it will contextualise the discussion of case law on copyright infringement of learning materials. Secondly, it will provide a good overall perspective as to what the commercial stakes are pertaining to copyright in South Africa, and as to what kinds of issues are seen as worth litigating.

As already stated, there is a substantial body of case law on copyright generally. The copyright subject matter in these cases ranges from blank audio cassettes[66] to computer programs[67] and academic texts.[68] The cases relate to locus standi,[69] parallel importation,[70] ownership,[71] authorship[72] and plagiarism.[73] It is difficult to link general copyright case law to access to learning materials, as the disputes often relate to right-holders' rights vis-à-vis an infringer of those rights and do not have an obvious impact on the general public's right to access to knowledge or learning materials. However, where you have two competing academic texts or learning materials, and a dispute arises that may result in one of the works

[64] B Wafawarowa 'Legislation, law enforcement and education: copyright protection in developing region' (2002) Bellagio Publishing Network (BPN) Newsletter 30. Available at www.bellagiopublishingnetwork.com/newsletter30/wafawarowa.htm [Accessed 30 March 2009].

[65] Ibid.

[66] *Frank & Hirsch (Pty) Ltd v Roopanand Brothers (Pty) Ltd* 1993 (4) SA 279 (A); 457 JOC (A).

[67] *Northern Office Micro Computers (Pty) Ltd and Others v Rosenstein* 1981 (4) SA 123 (C); *Prism Holdings Ltd and Another v Liversage and Others* 2004 (2) SA 478 (W); *Haupt t/a Soft Copy v Brewers Marketing Intelligence (Pty) Ltd and Others* 2006 (4) SA 458 (SCA).

[68] *Juta & Co Ltd and Others v De Koker and Others* 1994 (3) SA 499 (T).

[69] *Klep Valves (Pty) Ltd v Saunders Valve Co Ltd* 1987 (2) SA 1 (A).

[70] *Frank & Hirsch* supra note 52; *Golden China TV Game Centre and Others v Nintendo Co Ltd* 1997 (1) SA 405 (A).

[71] *Haupt t/a Soft Copy v Brewers Marketing Intelligence (Pty) Ltd and Others* 2006 (4) SA 458 (SCA).

[72] *Peter-Ross v Ramesar and Another* 2008 (4) SA 168 (C).

[73] *Juta v De Koker* supra note 54.

being withdrawn from the market, then access to learning materials is negatively impacted. This is because there will simply be fewer options on the market and because the remaining text may then become more expensive because of high demand (and its ensuing monopoly). Another example would be where a dispute pertaining to authorship delays or prevents the publication of a text.[74] In such a case the public is deprived of access to a potentially useful learning material.

Despite the general difficulty in relating copyright cases to access to learning materials, there are some cases that are clearly relevant to the subject.

A particularly significant case is *Frank & Hirsch v Roopanand Brothers (Pty) Ltd*,[75] which dealt with parallel importation. Parallel importation occurs when authentic articles made by or with the authorisation of the copyright holder in one country are imported, without authorisation, into a second country, to compete with the copyright holder or licensees in that second country.[76] These imported or 'grey goods' are often cheaper than the authorised goods.[77] The parallel importation of learning materials thus seems to be a viable solution to counter the problems posed by the unavailability of cheap local texts. Importing cheaper texts into a market that is dominated by expensive texts seems to be an easy way to ensure readier access to learning materials. The court's ruling on parallel importation in *Frank & Hirsch* is thus important, because it indicates how the courts are likely to rule on a dispute pertaining to the parallel importation of learning materials. This case related to the parallel importation of blank audio cassettes. The court held that such importation amounted to indirect copyright infringement, because the production of those cassettes in South Africa would have amounted to direct copyright infringement. Therefore, it appears that importing learning materials would be considered indirect copyright infringement if the production of those books in South Africa (by the importer or other person) would have been direct copyright infringement. It is important to note that this case was decided on an earlier version of the Copyright Act. The Act has since been amended. However, the amendment does not change the essence of the provision (Section 23), and the result or ruling would have been the same had the case been decided under the amended Act.

[74] As was the case in *Peter-Ross v Ramesar* supra note 58.

[75] Supra note 52.

[76] O Dean 'Parallel importation infringement of copyright' (1983) 100 *SALJ* 258.
[77] O Dean 'Copyright v grey goods in South Africa, Australia and Singapore' (1994) 111 *SALJ* 746.

The rich jurisprudence that has been developed in these and other cases shows that South African courts are equal to the task of settling copyright law disputes and indicates that they are in a position to competently adjudicate matters relating to copyright infringement of learning materials. Therefore, it cannot be said that the dearth of case law is due to a lack of confidence in the courts. There must be some other reasons why such cases do not end up before the courts.

It has been suggested that these reasons are mostly related to the following difficulties rights-holders encounter in pursuing remedies for infringement:[78] First, the complexity of copyright law and the law of evidence that makes it difficult for rights-holders to secure any evidence on which to mount litigation. Secondly, the view or attitude of police, customs officials and prosecutors, that copyright infringement is not a serious offence, means that rights-holders do not have meaningful support in pursuing criminal copyright infringement. Thirdly, some educational institutions take a similar view and are thus unwilling to assist rights-holders enforce their rights. Finally, the remedies are inadequate, in that fines imposed after convictions have been historically low, and proving civil damages is an almost insurmountable task due to the lack of statistical data. The net effect of these factors has been that publishers are very reticent to bring litigation or instigate criminal prosecutions and run the risk of substantial expense for an uncertain outcome.

There was a much-lauded successful prosecution in 2001, which is, however, not reported in the law reports. The facts pertaining to this matter have therefore been gleaned from interviews and publications.[79] Briefly, the facts of the matter are that a 'pirate photocopying shop' operating in Empangeni, KwaZulu-Natal was engaged in large-scale infringing reproduction of copyright protected works. A group of publishers pooled financial resources and worked together to obtain evidence, to lay criminal charges and to meet with the prosecutor assigned to the case. A conviction was obtained in this matter, with the infringer being sentenced to 3 years' imprisonment or a fine of ZAR30 000 (of which only half was payable).

Another publicised incident occurred in 2003 in the Western Cape. This matter did not result

[78] Ibid.

[79] Ibid and E Gray and M Seeber *PICC report on intellectual property rights in the print industries sector* (2004) at 57. Available at http://www.publishsa.co.za/docs/Intellectual_Copyright_Report.pdf [Accessed 30 March 2009].

in criminal prosecution or a civil claim for damages. Like the case discussed above, the facts outlined here are gleaned from publications[80] and interviews. The Dramatic, Artistic and Literary Rights Organisation (DALRO) requested a police raid of two shipping containers located near tertiary education institutions from which a large-scale illegal photocopying business was being run. Infringing copies, master-copies and the copying equipment were confiscated by the police. However, as already stated, neither criminal nor civil action was taken thereafter.

It appears that many copyright infringement matters are disposed of by settlement or the abandonment of claims by rights-holders due to the difficulties and uncertainty encountered in securing adequate remedies. The resultant lack of case law means that there are no authoritative judicial findings in relation to copyright in learning materials.

2.5 Summary of Doctrinal Analysis

Whilst there is no reported case law directly relating to copyright and learning materials, several themes emerge from the legislation.

Positive findings in the legislation, conducive to the promotion of access to knowledge, include the shorter terms of copyright protection as compared with numerous other countries, especially the European Union and United States. South Africa has for the most part implemented the minimum protection terms required by the Berne Convention and other relevant international treaties and agreements.

The Constitution, being the supreme law of the country, supersedes all other laws in the Republic. The rights in the Constitution's Bill of Rights are therefore crucial considerations for the judiciary in any question of the right of access to knowledge by a judiciary. The right to freedom of expression includes the right to academic freedom and freedom of scientific research. The Constitution expressly provides for the right to education, which, in turn, arguably places a duty on the State to facilitate access to learning materials required to exercise the right to education. Further and in the same section of the Constitution, a right to education in the official language of choice is offered, and this may be used as a basis for the inclusion of specific translation exceptions. Another important clause of the Constitution is in respect of the interpretation of other law; Section 39(2) provides as follows: 'When

[80] Ibid at 58.

interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights.'

The government's FOSS Policy, if implemented successfully, may address barriers to access to ICTs as experienced by schools and libraries. However, it is submitted that in order to more fully realise the benefits of such a policy, corresponding legislative amendments pertaining to access to the learning materials housed on such ICTs should be considered.

Notwithstanding these positive findings in the law, there is no doubt that the legislative landscape may be improved, or amended for clarity, in order to facilitate access to learning materials in South Africa. This applies in particular to legal flexibilities that advance access to learning materials, such as fair dealing and the Copyright Regulations based on section 13 of the Copyright Act. Recently-revised copyright laws in other countries, eg, Australia, could provide a basis for a revision process in South Africa that enhances and clarifies access possibilities in terms of learning materials.

For instance, currently the South African Copyright Act does not permit the scanning, translation, adaptation or conversion of works for the sensory-disabled in the absence of permission from the copyright-holder. The Act also fails to adequately address fair dealing in the context of digitised works.

Legislative and policy advancements in South Africa of late have had an enabling and progressive tone. Yet, when applied in the context of the Copyright Act, these advancements fail to cohesively deal with the relevant subject. To illustrate, despite forays into electronic communications access in South Africa, the Electronic Communications Act may serve to override copyright exceptions and limitations, including fair dealing provisions contained in the Copyright Act, and may attach criminal liability for use of a work that is legitimated by the Copyright Act.

In summary, the South African Copyright Act makes little use of the copyright flexibilities available under the relevant copyright treaties and agreements, particularly TRIPs. Such flexibilities pertain to the duration of copyright protection, the scope of copyright protection and especially the utilisation of copyright exceptions and limitations. The current set of

copyright exceptions and limitations appear vague and fragmentary and are, in many instances, outdated. The use of modern technologies for educational purposes, for example in distance education, remains largely unconsidered.

Thus, it is concluded that the South African Copyright Act must be updated to keep pace with technological advancements and recent surrounding policy and legislative advancements related to access to knowledge.[81]

[81] W Baude et al have offered model language for some exceptions and limitations to enhance access to learning materials, see W Baude et al 'Model language for exceptions and limitations to copyright concerning access to learning materials in South Africa' 7 *The Southern African Journal of Information and Communication* (2006) at 95-105.

CHAPTER 2: Access to Knowledge in South Africa and the Copyright Context

By Tobias Schonwetter, Caroline Ncube and Pria Chetty[82]

[82]This chapter was first published as a section of the African Copyright and Access to Knowledge (ACA2K) Project South Africa Country Report, http://www.aca2k.org. The ACA2K Project is a research project funded by Canada's International Development Research Centre (IDRC) and South Africa's Shuttleworth Foundation, and managed by the LINK Centre, Graduate School of Public and Development Management (P&DM) Wits University Johannesburg. See http://www.idrc.ca, http://www,shuttleworthfoundation.org, and http://link.wits.ac.za."

1. Qualitative Analysis

1.1 Secondary Literature

This section of the report describes the results of the review of *domestic* secondary materials from a variety of sources. These include books, academic articles, reports, pamphlets, brochures and guidelines. Although emphasis is placed on South African and Southern African materials, it must be noted that international materials and materials from outside Africa significantly influence the current debate regarding the relationship between copyright laws and access to learning materials. It is for this reason that the comparative review of the ACA2K project also addresses relevant material from outside the study countries. The following foreign/international materials are of particular importance:

- The *Gowers review of intellectual property*;[83]
- WIPO reports and documents, especially those of the Standing Committee on Copyright and Related Rights (eg, Sam Ricketson's *Study on limitations and exceptions of copyright and related rights in the digital environment*[84] and Kenneth Crews' *Study on copyright limitations and exceptions for libraries and archives*);[85]
- The *Copy/South dossier – issues in the economics, politics, and ideology of copyright in the global South*;[86]
- *Consumers International report, copyright and access to knowledge*;[87]
- 'Report on copyright exceptions and limitations' by Bernt Hugenholtz and Ruth Okediji;[88]

[83] A Gowers *Gowers review of intellectual property* (2006). Available at http://www.hm-treasury.gov.uk/d/pbr06_gowers_report_755.pdf [Accessed 30 March 2009].

[84] S Ricketson *Study on limitations and exceptions of copyright and related rights in the digital environment* (2003) WIPO doc SCCR/9/7. Available at http://www.wipo.int/edocs/mdocs/copyright/en/sccr_9/sccr_9_7.pdf [Accessed 30 March 2009].

[85] K Crews *Study on copyright limitations and exceptions for libraries and archives* (2008) WIPO doc SCCR/17/2. Available at http://www.wipo.int/edocs/mdocs/copyright/en/sccr_17/sccr_17_2.pdf [Accessed 30 March 2009].

[86] A Story, C Darch, D Halbert *The Copy/South Dossier – issues in the economics, politics, and ideology of copyright in the global South* (2006). Available at http://www.kent.ac.uk/law/copysouth/en/dossier.htm [Accessed 20 October 2008].

[87] Consumers International *Copyright and access to knowledge* (2006). Available at http://www.consumersinternational.org/Shared_ASP_Files/UploadedFiles/C50257F3-A4A3-4C41-86D9-74CABA4CBCB1_COPYRIGHTFinal16.02.06.pdf [Accessed 30 March 2009].

[88] B Hugenholtz and RL Okediji *Conceiving an international instrument on limitations and exceptions to copyright* (2008). Available at http://www.ivir.nl/publicaties/hugenholtz/finalreport2008.pdf [Accessed

- The Alternative Law Forum's (ALF) 'Review of the proposed amendment to the [Indian] Copyright Act';[89]
- The UNCTAD-ICTSD Issue Paper by Ruth Okediji;[90]
- Commonwealth of Learning (COL) 'Document for Commonwealth countries on copyright matters in education';[91]
- A Foundational White Paper by the Berkman Centre for Internet & Society, 'The digital learning challenge: obstacles to educational use of copyrighted material in the digital age*'* (WW Fisher and W McGeveran);[92]
- UK Commission on Intellectual Property Rights report.[93]

The *Copy/South dossier* particularly contains critical comments on a number of issues on IP in SA including educational materials. Moreover, the report by the UK Commission on Intellectual Property Rights contains specific discussions of South Africa and the South African Dramatic, Artistic and Literary Rights Organisation (DALRO) in its annexes.

Considerable (international) material has also been generated in the course of recent discussions about drafting an access to knowledge treaty[94] as well as by organisations and programs generally committed to the issue of access to knowledge, such as Creative

30 March 2009].

[89] Alternative Law Forum (India) 'Response to the proposed copyright amendment' (2006). Available at http://www.altlawforum.org/ADVOCACY_CAMPAIGNS/copyright_amdt/Copyright%20Amdt-Response-13th%20July%202006.pdf [Accessed 30 March 2009].

[90] RL Okediji *The international copyright system: limitations, exceptions and public interest considerations for developing countries* (2006) UNCTAD-ICTSD Project on IPRs and Sustainable Development. Available at http://www.unctad.org/en/docs/iteipc200610_en.pdf [Accessed 30 March 2009].

[91] (2005). Available at http://www.col.org/SiteCollectionDocuments/Copyright%20Document.pdf [Accessed 30 March 2009].

[92] (2006). Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=923465 [Accessed 30 March 2009].

[93] UK CIPR *Integrating intellectual property rights and development (*2002). Available at http://www.iprcommission.org/papers/pdfs/final_report/CIPRfullfinal.pdf [Accessed 30 March 2000].

[94] See, for instance, the material listed on the CPTech website, http://www.cptech.org/a2k/a2k-debate.html [Accessed 30 March 2009].

Commons / iCommons[95] or the Yale Law School A2K Research Programme.[96]

In South Africa, as with many developing countries, copyright law is only beginning to be recognised as an important aspect of development policy. As a result, copyright law in general and, more specifically, the correlation between copyright law and access to knowledge/ learning materials is under-explored in South Africa's (legal) secondary literature.

Very few books are entirely devoted to South African copyright law. Notable exceptions are OH Dean's continuously updated loose-leaf *Handbook of South African Copyright Law*, A Smith's *Copyright Companion* of 1995 and AJC Copeling's rather outdated *Copyright and the Act of 1978*. Naturally, these books address copyright law from a fairly broad perspective. Thus, emphasis is placed on general issues such as requirements for copyright protection, nature and scope of copyright protection, ownership and transfer of copyright, duration of copyright and infringement of copyright. The matter of access to learning material, however, is neither expressly mentioned in the table of contents of Dean's, Smith's and Copeling's books nor referred to in the indices of these books. This is not to say, however, that this subject is ignored. On the contrary, achieving a fair balance between the interests of right-holders and users is singled out as a major objective of copyright law.[97] Moreover, copyright exceptions and limitations as the main access-enabling tools for users are dealt with in detail.[98]

Apart from the above books, copyright law is often briefly discussed in single chapters in textbooks dealing with business/commercial law.[99] Yet again, access to learning materials is usually not specifically addressed in these chapters. Mention is, however, typically made of

[95] For more information regarding Creative Commons in South Africa, see A Rens and H Ford *Some rights reserved – copyright contracts that give content away?* (2004) 12 De Rebus 21. Recently, the 'BISA Copyright Review project' (2008) was introduced on the iCommons website. This review project is a comparative project being run by FGV, The Alternative Law Forum and iCommons. For more information see http://icommons.org/articles/comparative-study-of-copyright-in-brazil-india-and-south-africa [Accessed 30 March 2009].

[96] See http://www.law.yale.edu/intellectuallife/6542.htm [Accessed 30 March 2009].

[97] See, for instance, OH Dean *Handbook of South African copyright law* (1987) at 1-2.

[98] Ibid at chapter 9.

[99] See, for instance, JTR Gibson *South African mercantile and company law* (2003) chapter 15 and D Collier-Reed and K Lehmann *Basic principles of business law* (2006) chapter 17. See also, for Internet-related copyright issues, F Cronje and R Buys *Cyberlaw@SA II: The law of the Internet in South Africa* (2004) chapter 1.

the legitimate interests of users safeguarded by copyright exceptions and limitations.[100]

In recent years, copyright law in general and the issue of access to learning materials in particular have started to attract more (academic) attention in South Africa. A main reason for the increased interest was arguably the commencement of the pioneering Access to Learning Material (A2LM) Southern Africa project in 2004 under the coordination of Achal Prabhala. The project was run through the Consumer Institute South Africa, supported by the Open Society Institute. It included an international conference in Johannesburg in January 2005. Literary outputs from the project were numerous conference papers as well as the following two research papers:

- A Prabhala, 'Economic Analysis of Income and Expenditure Patterns in South Africa: Implications for the Affordability of Essential Learning Materials'; and
- A Prabhala and C Caine, 'Memorandum on the Free Trade Agreement Negotiations Between the United States and the Southern African Customs Union'.

The first paper essentially argues, on the basis of household survey data from South Africa, that certain basic needs (such as food, water, electricity/energy, transport and shelter) need to be taken into account when determining the affordability of learning materials. The paper concludes that at 'current prices for learning materials, a vast number of poor South Africans are excluded from education'. Consequently, providing low-cost learning material would be an attractive policy tool for stimulating education.

The second paper, by A Prabhala and C Caine, voices a number of concerns against the conclusion of a Free Trade Agreement (FTA) between the United States of America and the Southern African Customs Union (SACU). In particular, the authors criticise the proposed extension of the copyright term; impediments to educational licensing and adaptations; impediments to parallel trade; and the legal protection of technological protection measures. The authors conclude that the US-SACU FTA 'has the potential to undermine access to learning materials, and consequently, affect access to education in SACU member countries'. Especially the adoption of the TPM provisions in the SACU US FTA would increase the cost of accessing information and therefore widen the knowledge gap between developed and developing countries.

[100] See, for instance, JTR Gibson supra note 84 at 723.

Also in 2005, the Commons-Sense Conference was convened by the LINK Centre, Graduate School of Public and Development Management (P&DM), Wits University, Johannesburg. The conference drew together African stakeholders who are concerned with finding alternative approaches to copyright and digital knowledge resources. Apart from numerous conference papers created by participants, the conference resulted in the publishing of *The digital information commons: an African participant's guide*.[101] The Guide describes the meaning of the 'digital information commons' and explains inter-relationships between several important concepts in this area:

> the notion of copyright, whose laws have moved farther and farther from the ideals of balance and public interest that characterised their beginnings; the trends towards digitisation and convergence that present both opportunities and threats in this critical period between the industrial and information ages; and the call for a renewal of the public domain and 'information commons'.[102]

Subsequently, the guide deals with important global players, processes, issues and projects in this field, such as WIPO, the WTO, UN agencies, activists, IPR exceptions, compulsory licensing and parallel importation and open access. Lastly, and arguably most importantly, the guide identifies and briefly summarises a significant number of African players, processes, issues and projects.

Unfortunately, both the A2LM website (www.access.org) and the Commons-Sense website (www.commons-sense.org) are defunct by now. However, some of the material created for these projects may still be accessed via the 'Wayback Machine' Internet archive (www.waybackmachine.org).

In connection with the aforementioned Commons-Sense Project, a special 'African digital information commons' edition of the Wits LINK Centre's *Southern African Journal of Information and Communication (SAJIC)* was published in 2006.[103] This edition included the following access to knowledge-related contributions:

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[101] C Armstrong, H Ford, S Hirano, D Nicholson and A Prabhala *The digital information commons: an African participant's guide* (2005). Available at http://www.sivulile.org/workshops/commons-sense/Digital%20Commons%20Guide-19-May-05.doc [Accessed 30 March 2009].

[102] Ibid at 9.

[103] Issue 7 2006.

- C Armstrong and H Ford, 'Africa and the digital information commons: an overview'
- A Rens and L Lessig, 'Forever minus a day: a consideration of copyright term extension in South Africa'
- T Schonwetter, 'The implications of digitizing and the Internet for "fair use" in South Africa'
- C Visser, 'Technological protection measures: South Africa goes overboard. Overbroad.'
- C A Masango, 'The future of the first sale doctrine with the advent of licences to govern access to digital content'
- W Baude, J Hofman, E Katz, K McDaniel, A Rens and C Riley, 'Model language for exceptions and limitations to copyright concerning access to learning materials in South Africa'
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Other relevant law journal articles were, for instance, published by V van Coppenhagen 'Copyright and the WIPO Copyright Treaty, with specific reference to the rights applicable in a digital environment and the protection of technological measures'[104] and T Pistorius 'Developing countries and copyright in the information age - the functional equivalent implementation of the WCT'[105] and 'Copyright in the information age: the catch-22 of digital technology'.[106] Professor Pistorius also delivered a related paper at the South African Commercial Law in a Globalised Environment Workshop 2006, titled 'Digital copyright law: the impact on access to information'.[107]

Of particular importance for the purposes of this report is an article penned by T Rufus in 2005. In her article titled *Sub-Saharan Africa, education and the knowledge divide: copyright law a barrier to information,*[108] Rufus addresses some of the barriers that the current

[104] (2002) 119 (2) *South African Law Journal* 442.

[105] T Pistorius supra note 44.

[106] (2006) 1 *Critical Arts* 47-61.

[107] Centre for Business Law, University of South Africa, Sandton, South Africa, 22 August 2006.

[108] T Rufus *Sub-Saharan Africa, education and the knowledge divide: copyright law a barrier to information* (2005). Available at http://afro-ip.googlegroups.com/web/rufus.pdf?hl=en&gda=IWshKDsAAADqBJO4XTXJzpnWrt6ldFLtHOcnoEOpE3GncGTpFJ_3cgpFILAnNIlPbA8jWbuU_owGRdr3QrylPkw2aRbXD_gF&gsc=5Abq-RYAAAAqtg42Zg7_Eyhpu0TOPQDss2eVkvUep6Sz3iYVdrhVlA [Accessed 1 August 2009].

copyright regime creates for education and research in developing countries, particularly in South Africa. The author first discusses selected problems for the lack of access to knowledge in sub-Saharan Africa such as the lack of translation rights and the absence of provisions for the benefit of the disabled. Thereafter, Rufus points out that while the advent of digital technologies has, on the one hand, increased access possibilities, "these advances have also stemmed new possibilities for the control and increase of knowledge gaps within societies"[109]. Subsequently, Rufus argues that "the international knowledge system is a highly imbalanced state of affairs, which prioritise[s] the economic rights of information providers, by monopolising societies need to gain access to knowledge"[110]. In her conclusion, Rufus essentially states that (a) suppressing knowledge into the straitjacket of a western world intellectual property system is a wrong doing of developed nations, and that (b) the profit oriented approach currently followed with regard to intellectual property needs to be modified.[111] Rufus does not, however, offer any suggestions as to how the current IP system can be enhanced.

Apart from the above-mentioned efforts and publications, it can be observed that a growing number of theses on both LL.M. and Ph.D./LL.D. levels address copyright-related issues such as copyright exceptions and limitations and technological protection measures. D J Pienaar's LL.M. thesis entitled *Statutory defences against actions for infringement of copyright* (1988) and M Conroy's LL.D. thesis entitled *A comparative study of technological protection measures in copyright law* (2006) are but two examples. Master theses and doctoral theses related to copyright can best be found in institutional digital repositories such as UCT's lawspace (http://lawspace.law.uct.ac.za) or the UnisaETD (http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=15350). In addition, there are various other electronic resources for theses, some of which are subscription based. For instance, Sabinet's Union Catalogue of Theses and Dissertations (UCTD) provides access to 65 000 records of dissertations at masters and doctorate levels submitted to universities in South Africa in all disciplines. The search in UCTD for the keyword 'copyright' produces 45 results. Other databases include ALEPH, Current Law Research (via LexisNexis Butterworth), Nexus – database of current and completed research in South Africa (via AfricaWide) and Nexus current and completed research projects (via National Research

[109] Ibid at 12.

[110] Ibid at 16.

[111] Ibid at 20.

Foundation).

However, the majority of secondary literature in South Africa dealing with copyright law and access to learning material issues originates from, or is contained in, a relatively large number of independent reports or articles published in media other than law journals.

Arguably the most important South African reports dealing with the copyright environment that the ACA2K project strives to examine are

- the *PICC report on intellectual property rights in the print industries sector* (2004)[112] by E Gray and M Seeber;
- the *Intellectual property, education and access to knowledge in southern Africa* report (2006)[113] by A Rens, A Prabhala and D Kawooya; and
- the recent 'South African open copyright review' (2008).

The PICC report probes the impact of copyright protection on growth and development in the print industries sector and makes recommendations for further action that could contribute towards growth and development in the print industries sector. It is primarily meant as a theoretical underpinning for right-holders in the print industry sector who want to engage in a dialogue with users of copyright-protected material. To this end, the report provides:

- a background on international best practice;
- a review of intellectual property rights issues and the status quo in the print industry sector in South Africa;
- an identification of what intellectual property issues are helping or inhibiting growth in the sector; and
- recommendations for policy interventions and strategic actions.

The report concludes 'that the industry sector needs to participate more actively in the promotion of intellectual property issues and that this would best be pursued in collaboration with other rights holders, in order to maintain a united front in pursuing the implementation of the necessary policy, legislative and strategic actions that need to be taken if the print

[112] (2004). Available at http://www.publishsa.co.za/docs/Intellectual_Copyright_Report.pdf [Accessed 30 March 2009].

[113] (2006). Available at http://www.iprsonline.org/unctadictsd/docs/06%2005%2031%20tralac%20amended-pdf.pdf [Accessed 30 March 2009].

industry is to prosper and grow'.[114]

The 'Intellectual property, education and access to knowledge in southern Africa' report examines the responsibility of intellectual property legislation for hurdles to access to learning materials in countries of the Southern African Customs Union (Botswana, Lesotho, Namibia, Swaziland and South Africa). Furthermore, the report audits domestic copyright exceptions and limitations which are relevant in the context of access to learning materials. The report concludes that 'neither does copyright legislation in SACU countries make significantly positive provisions for access to learning materials, nor does it take full advantage of the flexibilities provided by TRIPs'.[115]

The 'Open review of the South African Copyright Act' aims to provide a diligent assessment of current South African copyright legislation. This is primarily done by way of a section-by-section review of the provisions of the South African Copyright Act of 1978. Emphasis is on sections impacting access to knowledge. The review essentially links the knowledge policy debate on the one hand and technical details of copyright legislation on the other. The following general recommendations are contained in the review report:

- The exclusive rights granted under copyright should not extend in term and scope beyond what is required by the international treaties by which South Africa is bound;
- Expand and adapt the current set of exceptions and limitations to better enable access to knowledge. State exceptions and limitations clearly. Exceptions and limitations should address new technologies;
- Protect the public domain;
- Address the orphan works problem;
- Explicitly permit circumvention of technologies which jeopardise the balance of copyright by preventing users from exercising their rights under exceptions and limitations;
- Permit parallel importation of copyright protected material;

[114] E Gray and M Seeber supra 65 at 8.

[115] A Rens, A Prabhala and D Kawooya supra note 98 at 65.

- Balance the reduction in the public domain resulting from proposed grant of rights over indigenous knowledge by granting appropriate exceptions;
- Provide that all government funded works which do not immediately fall into the public domain are freely available on equal terms to all South Africans;
- Define licence so as to explicitly support free copyright licences;
- Commence government inquiry into a provision that authors can reclaim title to works which subsequent rights-holders fail to use over long periods of time such as five years;
- Commence government inquiry into feasibility of making use of the Berne Appendix' special provisions for Developing Countries.[116]

A fair amount of relevant material in South Africa has also been produced for or by different advocacy groups, especially library associations such as IFLA and publishers/authors associations such as PASA and ANFASA. The aforementioned PICC report also falls into this category. PASA has published several position statements and discussion documents on copyright which can be accessed on PASA's website (www.publishsa.co.za). In one of its documents, PASA expressly addressed the relation between copyright and access to information. This document reads as follows:[117]

> Given the need in South Africa to promote literacy and education in the broadest sense, the Publishers' Association of South Africa recognises the right of access to information by all individuals, and acknowledges that books are central to the learning process.
>
> It notes the concomitant rights of authors to protect their intellectual property and income, and publishers to protect the products in which they have invested skill, time and money.

[116] Draft Review (in possession of the authors of this report). The Final Review will be available shortly at http://www.shuttleworthfoundation.org/our-work/intellectual-property-rights .

[117] Document in possession of the authors of this report.

Given the increasing infringements of copyright which are:

• Threatening the publishing industry;

• contravening the law (SA copyright Act no 88 [sic] of 1978, and the Berne Convention); and

• affecting the rights of authors and publishers,

The Publishers' Association of South Africa undertakes to continue its campaign to:

a) Inform/educate the public and institutions as to the value of intellectual property and the laws which protect it;

b) prosecute those who infringe these laws;

c) negotiate with all institutions the best methods to overcome the problems of illegal and unlicensed photocopying of written materials, or copying of electronically stored information; and

d) work with individuals and institutions to address those problems of book price and availability which currently limit the accessibility to books as tools of learning and advancement for students and general readers alike.

e) explore the potential for new media to offer appropriate solutions to information dissemination in an African context and seek the most effective ways of protecting the rights of authors and publishers in the digital environment while still ensuring access by readers/without impeding access to information.

In addition, numerous reports and papers have been created by PASA and others to describe the South African publishing market. The 'PASA annual industry survey 2006 report'[118] and the 'PASA annual industry surveys – broad trends over three years (2004-2006)'[119] provide

[118] (2007). Available at http://www.publishsa.co.za/docs/PASA_Survey_Report_2006_13Sept2007.pdf [Accessed 30 March 2009].

[119] (2007). Available at http://www.publishsa.co.za/docs/Broad%20Trends%20Report%20(2004-2006)%2023Nov2007.pdf [Accessed 30 March 2009].

useful background data regarding (1) turnover profiles, (2) production profiles, (3) author profiles, and (4) royalty profiles in South Africa. The 'Publishing market profile South Africa' (2004), issued by the UK Publishers Association and the British Council, contains further valuable background information about the publishing environment in South Africa. Additional information can be found in a PASA submission to the OECD entitled 'Policies and procedures governing school publishing in South Africa: South Africa educational publishing'.[120] Of interest is also the 'G:enesis – Factors influencing the cost of books in South Africa' report of 2007, commissioned by the South African Department of Arts & Culture through PICC.[121] The G:enesis report makes mention of copyright protection in two instances. Firstly, it states that obtaining permission to use copyright-protected material is part of the origination costs for a publisher, ie, costs that a publisher has to incur to create a book.[122] Secondly, the report notes:

> The problem of a small academic market is worsened by sell-through rates that are often as low as 50 per cent for academic textbooks (industry role-player, 2006). The main reasons for these low sell-through rates are illegal photocopying of books, and lecturers who do not encourage the purchase of prescribed textbooks (industry role-players, 2006). Sell-through rates also vary as a result of factors like ease of access to academic bookstores, and whether or not there is a culture of book-buying at the tertiary institute in question (industry role-players, 2006). Industry role-players mentioned that the photocopying problem is worsened by the appearance of illegal photocopying shops close to the campuses of tertiary institutions. They also mentioned that current copyright legislation makes it a cumbersome process to close down these illegal photocopying shops.[123]

Of the many publications penned and issued by library associations, a most recent IFLA paper by D Nicholson and D Kawooya is to be singled out in the present context: The paper 'The impact of copyright on access to public information in African countries: a perspective

[120] Paper in possession of the authors of this report.

[121] The report is available at http://www.sabookcouncil.co.za/pdf/PICC_Cost%20of%20books%20studyFinal.pdf [Accessed 30 March 2009].

[122] Ibid at 19.

[123] Ibid at 71.

from Uganda and South Africa'[124] focuses on access to government information in South Africa and Uganda and examines the impact of copyright in the access process. The authors of the paper stress the importance of access to government information in a democratic country and briefly summarise the relevant pieces of South African legislation other than the Copyright Act No. 98 of 1978, including the South African Constitution, the Promotion of Access to Information Act (PAIA) No. 2 of 2000 and the Electronic Communications and Transactions (ECT) Act No. 25 of 2002. Moreover, the paper touches upon the issue of access to digital information by the public and makes mention of South Africa's recent decision to adopt the Open Document Format (ODF) as the official standard for South African government communications. The authors note that '[t]he South African Government has adopted a more transparent approach to providing information and making it accessible via printed reports and on websites. However, use of this information is subject to copyright conditions'.[125] The paper concludes that (1) a culture of the right to information still needs to be cultivated in South Africa and that (2) Government officials should be trained to assist the public in the pursuit for information in order to 'reduce the culture of secrecy embedded in many areas of public administration'.[126] 'To avoid access to information law being undercut by any new state secrets law or other related legislation, eg, commercial secrecy or data protection, civil societies need to monitor the whole body of laws that manage the right to information. They need to ensure that any changes to these others laws are consistent with maximum enjoyment of the right to know.'[127] The authors of the paper attach great importance to librarians in this process.

The issue of access to government information is also being discussed in various other articles and publications under the heading of 'access to information'. While it is important to make brief mention of this issue in the present context, it must be stressed that this issue primarily concerns government rules for transparency. Hence, the issue is – in spite of its somewhat misleading labelling – for the most part not about copyright. The following

[124] (2008). Available at http://www.ifla.org/IV/ifla74/papers/087-Nicholson_Kawooya-en.pdf [Accessed 30 March 2009].

[125] Ibid at 19.

[126] Ibid at 21, quoting Transparency International *Using the right to information as an anti-corruption tool* (2006) at 11. Available at <www.transparency.org/content/download/9633/66877/file/TI2006_europe_access_information.pdf> [Accessed 30 March 2009].

[127] Ibid.

publications are considered most important with regard to the issue of access to [government] information in South Africa.

In 'Work in progress: developing policies for access to government information in the new South Africa,[128] PJ Lor and A van As – like Nicholson and Kawooya – at first emphasise the constitutional aspects of access to information in general and government information in particular. Thereafter, various government policy initiatives on access to information as well as government initiatives on organisational structures are described. The article also briefly addresses the Promotion of Access to Information Act (PAIA) No. 2 of 2000 and the Legal Deposit Act No. 54 of 1997. In conclusion, the authors criticise the lack of practical and well-coordinated measures to improve access to government information. The authors state that '[t]he government has a broad, general policy, reiterated in various legislative and policy documents, that it places high priority on free access to information in support of the ideals of open democracy and its corollary, universal access to telecommunications and information. However, the government has not developed a clear policy framework within which the various initiatives can be coordinated'.[129]

In 'The state of access to information in South Africa',[130] DT McKinley argues that public access to information is the life-blood of any meaningful democratic participation. The report strives to provide a comprehensive overview of the state of access to information in South Africa. Emphasis is thereby placed on the implementation of the Promotion of Access to Information Act (PAIA) 2 of 2000. The author suggests that a number of serious challenges still exist in South Africa with the realisation of the right of access to information. As a result, the report contains in its final section an extensive list of recommendations for advocacy work around realising the right of access to information in South Africa. These pertain to (1) specific sections in PAIA; (2) related legislation; (3) the role of National Archives (NA) and Department of Justice (DoJ); (4) the TRC archive, apartheid-era security establishment records and Classification Committee; (5) the Human Rights Commission (HRC); and (6) the strategy and tactics of civil society organisations.

[128] PJ Lor and A van As 'Work in progress: developing policies for access to government information in the new South Africa' (2002) 19 *Government Information Quarterly* 101-121.

[129] Ibid at 117.

[130] (2003). Available at http://www.csvr.org.za/docs/trc/stateofaccess.pdf [Accessed 30 March 2009].

In 'The right of access to information: civil society and good governance in South Africa',[131] A Arko-Cobbah stresses the importance of access to information for South Africa's democracy, especially against the backdrop of past experiences during the apartheid era in which a 'culture of secrecy was the hallmark of the operations of government'.[132] According to Arko-Cobbah certain preconditions are necessary for a successful implementation of free access to information, such as political stability, independent judiciary, a communications infrastructure as well as library and information services.[133] The paper briefly summarises the access to information environment in post-apartheid South Africa with emphasis on the constitutional right of access to information and the Promotion of Access to Information Act (PAIA) No. 2 of 2000. Subsequently, some of the legislative and other challenges facing the Promotion of Access to Information Act (PAIA) No. 2 of 2000 are discussed. The paper concludes that:

> the 1996 Constitution and the Promotion of Access to Information Act, Act 2 of 2000, in spite of various shortcomings, represent both an opportunity and a challenge in the consolidation and extension of the democratisation process in the country. […] [However,] South Africa's information access legislation, lofty as it appears to be, is unlikely to have any real impact unless more steps are taken to build capacity within civil society, to train public officials to comply with the legislation even when it tests the limits of the law and encourage a broader participation of people in the processes of government that affect their lives.[134]

C Darch's and P G Underwood's article 'Freedom of information legislation, state compliance and the discourse of knowledge: the South African experience'[135] also merits mention here. The article contains a comprehensive list of references and includes the following most important observations:

> [T]he [freedom of information] culture is only shallowly rooted in South

[131] (2007). Available at http://www.ifla.org/IV/ifla73/papers/135-Arko-Cobbah-en.pdf [Accessed 30 March 2009].

[132] Ibid at 4.

[133] Ibid at 3-4.

[134] Ibid at 13-14.

[135] 37 The International Information and Library Review (2005) 77-86.

> African soil […]. An implicit precondition for an informed citizenry is a citizenry that is information literate and able to understand the dominant discourse of power, both literally and metaphorically. […] This precondition cannot always be met, especially in less-developed countries, in countries with dramatically unequal levels of education, and in multilingual and multi-cultural societies. South Africa meets all these conditions and exemplifies the proposition that the less homogenous a society and the lower the general level of education, the harder it is to develop sustainable and useful FoI practice. […] English, although it is spoken and understood by a minority of citizens, occupies an unchallenged position as the language of government, education, social communication, and literature. Only a third of all South Africans can understand English, and this drops to a quarter of the African population considered on its own. […] Unless this exclusion of a majority of citizens from the very discourse of power is taken into account in the definition of appropriate compliance behavior at the microlevel, it is hard to see how FoI legislation, however carefully constructed it may be as law, will have a significant social impact in South Africa or other similar countries for years to come.

In the context of this literature review, it also appears worth mentioning that in May 2005, the Commonwealth of Learning (CoL) convened a group of copyright experts in Johannesburg to develop a guideline document on copyright limitations and exceptions.[136] Later, CoL also commissioned a 'copyright audit' document,[137] which provides an explanatory checklist for researchers seeking to examine their country's national copyright environments in terms of provisions in support of education.

Furthermore, in January 2008, the 'Cape Town open education declaration' was launched.[138] The declaration (1) urges governments and publishers to make publicly-funded educational materials available freely over the Internet, and (2) encourages teachers and students around

[136] J Hofman, D Kawooya, D Nicholson, A Ntuma, A Prabhala, R Schad, T Schonwetter, L Tladi and P West, 'Document for Commonwealth countries on copyright matters in education' (2005). Available at http://www.col.org/SiteCollectionDocuments/Copyright%20Document.pdf [Accessed 30 March 2009].

[137] A Prabhala and T Schonwetter 'Commonwealth of Learning copyright audit' (2006). Available at http://www.col.org/resources/knowServices/copyright/Pages/lawEduc.aspx [Accessed 30 March 2009].

[138] Available at http://www.capetowndeclaration.org/read-the-declaration [Accessed 30 March 2009].

the world to use the Internet to share, remix and translate classroom materials to make education more accessible, effective, and flexible.

Most recently, Andrew Rens from the Shuttleworth Foundation also addressed the issue of copyright exceptions and limitations in a working paper on intellectual property.[139] The paper essentially argues that 'the [WIPO] Development Agenda presents the right opportunity to create globally applicable minimum exceptions to copyrights for educational purposes. Absent such harmonisation, educators and educational institutions around the world will face unnecessary hurdles to facilitating development'.

Also, A Haupt examines, among other things, in his recent book *Stealing Empire*[140] Creative Commons and open source licences in South Africa. Haupt notes that on the one hand, '[t]he adoption of Creative Commons licences in South Africa could go a long way towards reducing the costs of publishing and distributing works as well as simplifying legal processes, provided that the digital divide is narrowed significantly over the next few years'.[141] On the other hand, however, he argues that the success of Creative Commons eventually depends on the ability of American advocates of Creative Commons to enter into partnerships with activists in the developing world: 'These partnerships would be most successful when some of the basic premises from which Creative Commons operates are interrogated in order to create room for alternative perspectives from poorer countries of the southern hemisphere'.[142]

Furthermore, several blogs in South Africa constantly address copyright and access to knowledge-related issues. Arguably the most popular blogs are presently

- Ex Africa Semper Aliquid Novi (www.aliquidnovi.org),
- Gray Area (http://blogs.uct.ac.za/blog/gray-area) and
- Sharing Nicely (http://bokaap.net/).

Lastly, the findings and final reports of the PALM Africa project will also be of great value.

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[139] A Rens in J de Beer (ed) 'Implementing the world intellectual property organizations' development agenda' (2009) at 158-169. Available at http://www.shuttleworthfoundation.org/sites/shuttleworthfoundation.org/files/ShuttleworthFoundation_Exceptions_Working_Paper_October_2008.pdf [Accessed 30 March 2009].

[140] (2008). Available at http://www.hsrcpress.ac.za/product.php?productid=2219 [Accessed 30 March 2009].

[141] Ibid at 122.

[142] Ibid at 126.

PALM Africa is a Research Initiative financed by the International Research Development Centre (IDRC), Canada. In South Africa, the project is led by Eve Gray. The PALM Africa project is closely connected with ACA2K's research work. For it examines how open content approaches employing flexible licensing could work in conjunction with local publishing in developing countries to improve access to learning materials. The main research question of the project is: 'Can the adoption of more flexible licensing regimes contribute to improved publishing and better access to learning materials in Africa today?'[143]

1.2 Impact Assessment Interviews

1.2.1 Stakeholders Interviewed

Interviewees were selected from the following stakeholder groupings and for the following reasons to provide data about both the intended and actual effects of copyright environment in South Africa:

- Government – To obtain an impression of the intended effects of the copyright environment, employees of the Department of Arts and Culture (DAC) and the Department of Trade and Industry (DTI) were interviewed.[144] These are two government departments entrusted with legislative and policymaking powers in the field of copyright law.
- Education Community – To ascertain the actual effects of the copyright environment, several employees of the University of Cape Town (UCT) who are responsible for copyright-related matters were interviewed. In particular, these employees were drawn from the IP and research department, the library and the Educational Technology departments of the institution.
- Copyright-holders – Rights-holder views were also sought through interviewing representatives of both the publishers association of South Africa (PASA) and an authors association (ANFASA).

[143] PALM Africa blog, entry of 12 June 2008 by Eve Gray, available at http://blogs.uct.ac.za/blog/palm-africa [Accessed 30 March 2009].

[144] A planned interview with employees from the Department of Education (DoE) never materialised despite several attempts to arrange for such an interview.

The choice of UCT as a representative institution for the second category of interviewees requires further explanation, for it could be argued that UCT is not representative of South African universities generally, as there is a group of historically disadvantaged universities that have resource problems and experience copyright in a markedly different way from UCT. However, the problems faced by under-resourced universities in Africa are universal and are hence addressed elsewhere. In the view of the research team, therefore, the examination of a well-resourced and highly acclaimed African institution of higher education like UCT offered to provide additional and valuable insight regarding the actual effects of the copyright environment on access to learning materials. Yet, in order to also incorporate other and less-resourced educational institutions into the research, two institutions other than UCT, the University of Limpopo and the University of South Africa (UNISA), are looked at through case studies at the end of this report.

Furthermore, the decision was made to focus on tertiary education institutions. While examining the situation in primary and secondary education would have doubtlessly provided additional insight, it appeared preferable to concentrate our resources on one sector, to provide an in-depth analysis of this sector, rather than settling for a superficial examination of two or more sectors. The South African research team believes that the tertiary education sector, as a result of the diversity of stakeholders involved, offers the greatest variety of copyright-related issues and problems. Many of these issues and problems, though certainly not all, equally apply to institutions of primary and secondary education. Also, tertiary education institutions are arguably very well positioned to advocate for the necessary legal, administrative and practical changes.

In accordance with the ACA2K's concern for gender and ethical issues, efforts were made to the select interviewees in a manner so as to achieve a diversity of men and women and to achieve a measure of racial and ethnic diversity. Of the nine individuals formally interviewed, three were white males, four were black males ('black' being used in the inclusive South African context) and two were white females.

The interviewees all came from roughly the same socioeconomic class, as they were high-ranking university, government or publishing industry employees. Such a selection was inevitable because the interviewees in question are by far the most knowledgeable on copyright at their places of employment. Attempting to interview lower-ranking employees

simply because they may have come from a different socioeconomic class would have compromised the quality of information obtained, because they would not have had the same levels of expertise, experience or institutional memory.

1.2.2 Stakeholders' Impressions

During the interviews, stakeholders' impressions were sought on a number of key issues. These are summarised elsewhere.[145]

1.2.2.1 Government

The government department representatives were probed on the following issues:

- the department's general view on copyright;
- the role played by their department in copyright policy formulation;
- their views on the effect of copyright on access to learning materials;
- what prominence, if any, has been given to the issue of access to knowledge in the copyright amendment process in South Africa;
- whether or not their department is/was aware of, and/or currently involved in any 'access to knowledge' initiatives;
- whether, in their view, there was any interrelation between gender and/or race on the one hand and access to learning materials on the other;
- their understanding of the linkage between information communication technologies (ICT), copyright and access to learning material.

The two interviewees both had legal training and a detailed understanding of copyright. They stated that their respective departments had expertise in the field. The DTI is the lead department on copyright law and policy, whilst the DAC plays a supportive role by providing feedback on particular issues when requested to do so by the DTI and where appropriate bringing certain issues to the attention of the DTI. Only one representative of the DTI and the DAC each were interviewed by the South African ACA2K research team. As a result, divergent views within each of these departments, especially between those who empathise with access to learning materials and those who do not, may not be fully captured and documented in this report.

[145] Transcripts of the interviews are available on request from the authors of this report,

Both interviewees were appreciative of the link between the copyright environment and access to learning materials and stated that their departments also held this view.

The DTI representative initially stressed the importance of copyright law for protecting the legitimate interests of creators and for incentivising creative activity. It emerged, however, that one of the DTI's goals is also achieving a fair balance of interests (between rights-holders and users) in the area of copyright law – particularly in relation to learning materials. Further, the department acknowledges a possible connection between copyright law and high prices for learning materials in South Africa caused by the fact that copyright law awards a limited monopoly to the right-holder. The DTI representative also stressed the relevance of South Africa's developing country status when drafting new copyright legislation.

The DAC is more attuned to cultural and artistic matters than the DTI but even in that context, the interviewee stated that the department was aware that the copyright environment had an impact on access to learning materials generally, and specifically, from the DAC perspective, on artistic and cultural training institutions. Indeed, the interviewee stated that copyright is a huge issue for museums, librarians and community artists.

It emerged in the interviews that the DTI is in the process of commissioning research which will influence policy changes. In addition, the department engages in public and stakeholder consultation. Also, the DTI closely follows and engages in copyright-related discussions at the World Intellectual Property Organisation (WIPO) in Geneva. The department is therefore familiar with the views of copyright stakeholders such as publishers, open source software representatives and learning institutions.

Both departments are aware of access to knowledge initiatives and hence both interviewees expressed genuine interest in ACA2K's research and findings.

In relation to gender and race-related issues, the DTI representative expressed the opinion that the current copyright laws do not discriminate on the basis of gender, and that (other) socioeconomic elements are predominantly the reason for dissimilar access potential. The DAC interviewee suggested, however, that gender and race issues were closely related to socio-economic factors. This is because certain races, and women in general, have been historically disadvantaged due to the country's apartheid past. The interviewee went so far as to state that black women particularly appeared most disadvantaged because they are poorer and less educated, and the copyright environment seems to affect them more adversely than

other groups. Also, it seemed to this interviewee that white males are more prominent in the copyright landscape, for example as leading IP lawyers and academics.

With regard to ICTs, both government representatives were of the view that ICTs were an enabler, and an empowering tool rather than a hindrance. For example, it was suggested that information should be easily distributable through cell phones. What kind of information – perhaps you can provide one or two examples of potential and plans for cell phone use in A2K? The DTI interviewee further stated that while he generally supported the use of technological protection measures (TPMs), he was also aware of access problems caused by such measures.

1.2.2.2 Educational Community

In seeking the views of the educational community on the impact of the copyright environment on access to learning materials, three interviews were held with employees at the University of Cape Town (UCT). The university employees interviewed were drawn from the main library, the Research Contracts and IP Services office, the Research and Innovation office and the Centre for Educational Technology. All interviewees were asked questions similar to those raised with the government departments, but with an emphasis on their specific educational environment and its needs. They were able to share their perceptions of the impact of the copyright environment on their mandate of providing high-quality education and research. Particularly they were asked questions about:

- the role copyright plays in curriculum development and learning support at the university;
- how copyright related issues are officially addressed/administered/ dealt with and communicated at UCT;
- how the university participates in copyright policy-making, lawmaking and regulation-making;
- how copyright is generally significant to the university;
- how the university utilises existing copyright exceptions and limitations;
- whether or not there is a different impact of the copyright environment on different racial groups and genders at the university; and

- how ICTs impacts the university's handling of copyright.

The respective UCT interviewees approached the issue of copyright protection and access to learning materials from very different angles. Overall, this group of interviewees demonstrated an appreciation of the relationship between the copyright environment and access to learning materials. But while the interviewee from the Centre for Educational Technology showed the greatest sympathy for enhancing access possibilities, the interest of the interviewees from UCT's Research Contracts and IP Services office were clearly focused on the financial exploitation of intellectual creations. The interviewee from UCT's main library was somewhat divided about the role of copyright, which does not come as a surprise, because university libraries usually represent both the interests of users (ie, students and teachers) and creators (ie, academics) of copyright protected works.

The following is a summary of the views obtained from this diverse group of interviewees:

Copyright plays a significant part in curriculum development and learning support. This is evidenced by the care that needs to be taken with respect to the compilation of course-packs, so that they are in compliance with the voluntarily negotiated blanket licence agreement the university concluded with the Dramatic, Artistic and Literary Rights Organisation (Pty) Limited (DALRO). There are also concerns about the dissemination of learning materials electronically via the university's online course system VULA. Whether or not the blanket licence agreement with DALRO improves or hampers access to learning materials could not be answered by the interviewees. The reason for this is that although the DALRO licence factors-in existing statutory copyright exceptions and limitations when setting the rates by containing a fair dealing component, it is impossible to say if and to what extent this fair dealing component is indeed fair because it is unclear what the law in South Africa really allows in terms of the reproduction of learning materials. As one interviewee put it:

> If the university view that [the law] allows generous copying, and probably even course-pack creation, is valid, then the DALRO licence is a poor deal. If the publisher view that the copying allowed […] is seriously constrained by the application of the Berne three-step test is right, then the allocation of the percentage for fair dealing copying may be fairer.

The same interviewee noted that the blanket licence agreement may, after all, be 'too

expensive' for what it offers, given the amount of work it creates for universities to track copying for DALRO and in light of the fact that universities did not aggressively, and in a united manner, engage in price negotiations with DALRO.

UCT has an Intellectual Property Policy that in part regulates copyright ownership in material produced by its staff (when done in the scope and course of their employment at the university). As a general rule, the university holds copyright in work produced by staff in the course of their employment. However, the copyright in a number of works is subsequently assigned to the authors of the works. The net income from copyright protected works is shared between the university and the authors.

The university has also created wide structures for copyright administration, as shown by the selected interviewees who came from three different bodies in the university. However, it was evident from the three separate interviews that the coordination of the roles played by the various structures could perhaps be improved. In some instances it seemed that the role-players were uncertain of each other's mandates and modus operandi. In fairness, it must be said that perhaps such a situation is understandable in an institution as large as UCT.

The university plays an active role in national IP policy and legislation formulation, as shown by the involvement of its staff in the consultation process for two bills, one on traditional knowledge and the other on publicly-funded research, which were recently discussed in Parliament. The interviewees stated that should further opportunities arise, they were confident that there would be meaningful participation from the university, as has been the case with other IP law and policy processes.

It is also noteworthy that in 2008, UCT committed to building a repository of Open Educational Resources (OER). The project is funded by the Shuttleworth Foundation. The purpose of the project is to create 'a new culture of sharing at UCT and the availability of high quality, open access learning materials organised on a UCT branded OER website'.[146] The project is expected to run through to February 2010.

With regard to gender and race dimensions, the interviewees could not easily conceptualise the impact that gender and race would have on access to learning materials. Two interviewees stated that it was more likely a broader socioeconomic phenomenon, ie, other socio-economic

[146] UCT Centre for Educational Technology website. Available at <http://www.cet.uct.ac.za/projects#OER> [Accessed 07 July 2009].

factors, beyond gender and race, were responsible.

When asked about the importance of digital technology and ICTs, all interviewees stressed the growing significance of such tools. They pointed to UCT's Educational Technology Policy Document. This document refers to both staff and students at UCT and makes explicit UCT's position on educational technology within the institution. In addition, the document suggests how the expressed principles may be put into practice.[147]

1.2.2.3 Copyright-Holders

The views of the rights-holder community were obtained by interviewing a representative of the Publishers' Association of South Africa (PASA), as well as a representative from the Academic and Non-Fiction Authors' Association of South Africa (ANFASA).

In particular, the interviewees were asked questions about:

- how their respective organisations participate in copyright policy-making;
- what their general stance on copyright protection is;
- how ICTs impact copyright-holders; and
- whether or not there are any gender and socioeconomic issues that impact on access to learning materials and/or on the South African copyright environment generally.

The PASA interviewee described the financial situation of South African publishers as generally healthy, especially due to the implementation of a new curriculum some years ago. He pointed out that most school books are produced locally; in higher education, however, the vast majority of learning material used in South Africa originates overseas. Although digital material is increasingly utilised, the interviewee stated that printed books are still the most accessible and readily available learning material in South Africa. The ANFASA interviewee linked the choice of learning materials to the materials prescribed by the Department of Education and indicated an increase in use of learning materials originating in South Africa.

The PASA interviewee noted that the publishing industry makes information available and ensures certain quality standards but can usually not provide information free since there are

[147] This 'UCT educational technology policy document' is available at: http://www.cet.uct.ac.za/policy [Accessed 30 March 2009].

costs involved in producing and distributing the material. With regards to open access and the interests of authors, the ANFASA interviewee also raised the issue of the costs associated with the production of knowledge, and tendered the suggestion that in promoting access to knowledge, these costs may be borne by the state, who could provide, for instance, subsidies to schools for the purchase of learning materials. The point that the ANFASA interviewee was making is that open access should still create a payment and revenue incentive for the producer of that content. How does this relate to open access? ANFASA also lobbies for public lending rights (PLRs), which would mean that every time a book is rented from libraries, the state is required to pay a royalty to the author.

The PASA representative also stressed that PASA has numerous policy positions regarding copyright law but that it was difficult at times to identify people in government departments with whom these issues could be discussed. As a result, PASA often engages in direct negotiations with user associations, such as LIASA – the Library Information Association of South Africa. These discussions have become much more open and less acrimonious in recent times.

The ANFASA interviewee has been active in highlighting authors' concerns during policy and legislative processes. Specific examples include input on the then-Publicly Financed Research Bill, where ANFASA promoted an exception for academic works, which was accepted. In respect of the Films and Publications Act Amendment, ANFASA took issue with the need for formal registration of any publication that involved children, highlighting that the provision was too broad and would result in pre-censorship.

While PASA is relatively satisfied with the current Copyright Act, it considers the Copyright Regulations as too vague, making litigation in this field difficult and costly. Moreover, many court cases have simply fizzled out because the judicial system appears not sufficiently prepared or informed enough to prosecute with vigour and energy. The ANFASA representative was pleased with the Copyright Act. ANFASA believes strongly in copyright, the protection of author's rights, educating authors about copyright and safeguarding copyright, especially in relationship with publishers.

The ANFASA interviewee was, however, displeased with the implementation of the Copyright Act. According to the ANFASA interviewee, when he was still practising law, his (previous) firm acted on behalf of DALRO, and represented four academic publishers whose

textbooks were being photocopied by a copy-shop at a university campus. The case was based on the Counterfeit Goods Act and test purchases were made and used as evidence. The law firm approached the DTI to undertake a search-and-seizure operation, whereby they would have confiscated the machinery in the copy-shop because it was being used to produce counterfeit goods. The main objective was to get publicity for the whole operation. However, according to the ANFASA interviewee, the DTI's immediate reaction was that the matter was emotive because it had to do with education, and the DTI went on to say that it usually deals with trademark infringement where factories make fake goods and the warrant is to go and seize the fake products and machinery. In this case, however, the photocopying was happening on an ad hoc basis and they were not likely to find quantities of photocopied books in the copy-shop. According to the ANFASA interviewee, it almost seemed as if the DTI had cold feet about taking up a case of copyright infringement regarding educational material.

The PASA interviewee expressed the view that current the South African copyright law and regime, in fact, are more inclined to make access to copyright protected material possible rather than not making it possible. He stated, in this context, that 'if one really wants to fundamentally challenge the current copyright regime in South Africa, you have to challenge that view of what IP is', ie, the view that IP is a very personal possession that belongs to the creator like any other kind of (tangible) property. But why the need for change of view if the regime is, according to PASA person, already skewed towards access?

Most importantly, the PASA representative frequently emphasised the importance of a balanced approach to copyright, which takes into account both the rights of the owners of copyright protected works and those of users. Among other things, copyright laws should therefore describe ways in which users can get access to copyright-protected material. If the industry followed this balanced approach, they could better run their own businesses 'because it might mean that they would constantly investigate better ways of providing access to the user while making money through this access'. Consequently, the PASA interviewee noted that a publisher is both like a stock market and a cathedral: one has to make money because one is running a business, but one is also working with precious material which is possibly a national asset, and definitely a human asset. It followed from this that intellectual property cannot be purely exploited for business. However, the interviewee noted that this was not a universally held view amongst publishers, and that others in the industry may well have a different view.

The ANFASA interviewee clarified that ANFASA's role as an organisation was to educate authors on copyright, though the choice of licence used eventually was the author's decision entirely. The ANFASA representative further submitted that authors are becoming increasingly aware of open access and Creative Commons licences, due to the discussions at industry events. According to him, some authors were willing to publish specific works under open content licences, but rather sought royalties where there was a strong belief that a work was commercially viable.

The PASA interviewee also expressed great interest in alternative licensing schemes, particularly Creative Commons licences.

The PASA interviewee further mentioned that PASA's contracts state, for example, that authors have to agree that their material will be provided free of charge to an institution that would transfer the material into Braille. Regarding formats of works, ANFASA cautioned authors against signing publishing contracts that allow publishing of a work in any format 'known or unknown'.

Regarding the language of a work, the ANFASA interviewee raised the point that there is a perception of only a small market for indigenous works: this meant that those who wrote in an indigenous language were not likely to find a publisher.

The PASA representative expressed the opinion that the discussion about access to copyright-protected material often has an unrealistic ideological basis. In his view, the core access issue appears to be the cost of copyright material – and as far as (locally produced) school materials is concerned, no huge mismatch between costs and what people can afford exists, because most material is funded by government anyway. In other words, he felt current prices for school textbooks did not prohibit people from accessing knowledge. In fact, he added, schools often choose very expensive textbooks although cheaper textbooks were also available. In addition, parts of textbooks can be photocopied freely or at least more cheaply, by applying to DALRO. The PASA interviewee acknowledged, however, that the situation may be different when it comes to tertiary educational material produced overseas. Such material is usually very expensive and thus there is a problem around costs.

The ANFASA representative also touched on the issue of photocopying of learning materials and its effect on the publishing industry. He said that publishers' current print runs are very low because the publisher is aware that of all the books in a print run, only one quarter will be

sold, because of the photocopying of such learning materials. This, he stated, raises the costs of books and limits the author's royalty payments.

The PASA interviewee also stated that, in addition, there is a huge problem in South Africa regarding access to bookshops where ordinary people in the community can buy books or print material. He said: '[T]his whole issue of affordability of just general books in order to create a better informed reading public and parents that can help their children with school tasks or just for the love of reading it – I think for me that is it.' ANFASA runs a grant scheme to promote the production of knowledge. The grant covers the author's specific costs related to the book being written, such as funds that allow the author to take time off work to complete the book, conduct research or travel. This is done to promote knowledge creation, and to encourage books that break new ground, and generally, to promote a culture of reading and writing.

Furthermore, the PASA interviewee had interesting views on ICT and socioeconomic dimensions including race and gender. For example, he noted that around 90 per cent of publishing houses are run by men.

Meanwhile, the PASA interviewee said publishing houses appear to have been impacted differently by the advent of ICT dissemination channels and the possibility of production of electronic learning materials. Some houses were able to include these easily in their business models whilst others are battling to do so. Generally, the PASA representative expressed his excitement about new access possibilities brought about by digital technologies, especially by way of using cell phones. Although he had not spent much time thinking about ICTs and copyright prior to the interview, he was able, immediately upon being asked the question, to note that the Internet and other ICT technologies may make it easier to reproduce copyright-protected material. Finally, he also agreed with other interviewees from the educational community and government departments that race, gender and socio-economic issues tend to be conflated in South Africa.

The ANFASA representative concurred that ICTs have indeed made knowledge more accessible, but stated that the use of learning materials in electronic format was linked to how well-resourced the library is – with only the more well-resourced universities using learning materials in electronic format. Regarding online publishing, the ANFASA interviewee expressed the reluctance of some authors concerned about copyright infringement of their

works in the online environment.

1.3 Summary of Qualitative Analysis

The findings of the qualitative component of the study can be summarised as follows:

Access to knowledge in general, and the interrelation between copyright protection on the one hand and access to learning materials on the other, are indeed discussed in South Africa. As a matter of fact, a fair amount of secondary literature addresses access to knowledge. However, a large percentage of these publications focuses on access to government information. As far as access to other knowledge material is concerned,, such as learning materials, only a few legal academics participate in the discussion.

Most relevant articles are penned either by rights-holder associations such as PASA or user advocacy groups and library associations. The stance taken in most of these articles towards copyright protection is understandably biased: while rights-holders generally argue for firm copyright protection regimes, regardless of the copyright material in question, user groups and libraries call for less stringent copyright protection, particularly with regard to learning materials. The majority of the (few) legal academics dealing with copyright law and access to knowledge appear to favour a less stringent copyright regime in South Africa, in order to facilitate access to learning materials and foster education in South Africa.

In spite of the fact that rights-holder associations and user groups chiefly lobby for their own respective causes, the different stakeholders show notable awareness of and understanding for the interests of other stakeholders. An acrimonious debate between rights-holders and users (which is seen in other countries) could not be detected.

Generally, most stakeholders interviewed lamented in one way or the other the outdated and often vague state of the current South African Copyright Act. The lack of relevant case law is seen as aggravating the situation. As a result, many interviewed stakeholders called for a revision of the present copyright legislation since it was simply not in touch with reality any longer, especially since the advent of digital technologies. Of course, the reform proposals varied considerably from stricter protection regimes (rights-holders) to significantly reduced

copyright protection (user-groups).

Most interview participants from the educational community were rather uncritical of South Africa's copyright legislation. Their main concern appeared to be the implementation, rather than the questioning of, the legal framework. Such an attitude is hardly surprising given the fact that some of the interviewees from UCT were administrators. Yet, in addition, it seems that universities are generally caught in the middle of the quarrel between copyright holders and users of copyright-protected material. Every university obviously accommodates both rights-holders and users. In essence, the educational community therefore strives towards complying with the current law. UCT's various intellectual property-related policies and agreements with rights-holders document these efforts. UCT is, however, in a rather privileged financial position in comparison with most other educational institutions in South Africa. Less affluent tertiary institutions in South Africa may not always be able to follow the law so easily, while at the same time ensuring sufficient access to learning materials for learners. The case study about the University of Limpopo at the end of this report further addresses this particular issue.

It would appear from the interviews conducted with government officials that more prominence is likely to be given to access to knowledge in any future copyright policy or legislative amendment process. This is, however, not an easy task, since even the limited number of interviews conducted for this project provided ample proof of the diverse and often conflicting positions between different stakeholders in this respect. To complicate matters further, views differ even within the same stakeholder category, particularly between different government departments and within the tertiary educational community, which naturally consists of both users and rights-holders of copyright-protected materials.

2. Information and Communication Technology (ICT)-Specific Findings

UNESCO Assistant Director-General for Communication and Information, Abdul Waheed Khan, recently said that:

> ICT can make a huge difference in improving the quality of life of people if […] States develop appropriate policies and strategies for the use of new and traditional technologies, are prepared to invest in human resource capacity to create local content, and if they will ensure access, particularly community

access, to those who are most in need.[148]

This statement demonstrates that the issues of ICT and access to (learning) material are closely related.

South Africa has the largest Internet community on the African continent, and cell phone use is widespread. ICT access facilitates access to learning material, particularly but not exclusively via the Internet. It is therefore laudable that all tertiary educational institutions (and a growing number of public schools) have some form of ICT access. It is also important to acknowledge that South Africa has various ICT-related policies in place, such as the policy on e-education. The government appears determined to establish South Africa as an information society. The strategies and plans suggest that schools and other educational institutions in South Africa are set to improve ICT access and usage in the future, a fact which is going to positively influence access to learning material in the country.[149]

Having said this, it must not be overlooked that a large number, if not the majority, of South Africans still lack the resources to use ICTs. As a result, printed books are still the most accessible and readily available learning tool in South Africa. The unequal access possibilities with regards to ICTs create a problematic internal digital divide with various social and economic implications that cannot be discussed here in full. It is amply evident that some major challenges still need to be overcome in the area of ICT in South Africa.

During the interviews conducted for this project, the issue of ICTs has been repeatedly raised by the interviewees, mostly in the context of digitised learning material. In summary, the response has been the acknowledgment of the potential of ICTs as an enabler for increased access to knowledge, but suggestive of the need for more clarity on the application of copyright in this domain.

The enactment of the Electronic Communications and Transactions Act 25 of 2002 affords electronic materials equal legal status as their printed-paper counterparts. The legal recognition and framework presented by this single piece of legislation has paved the way for

[148] UNESCO 'UNESCO promotes "knowledge societies" to maximise impact of communication technology' (2003). Available at http://portal.unesco.org/ci/en/ev.php-URL_ID=13170&URL_DO=DO_PRINTPAGE&URL_SECTION=201.html [Accessed 30 March 2009].

[149] For a good and relatively recent overview of ICT-related initiatives in South Africa see S Isaacs 'ICT in education in South Africa' (2007), Survey of ICT and education in Africa: South Africa Country Report, available at www.infodev.org/en/Document.429.aspx [Accessed 30 March 2009].

a significant increase in the adoption of electronic commerce in South Africa. Notwithstanding these positive developments, issues such as the adaptation of pre-existing legislation, particularly the Copyright Act, to cope with digitisation needs, must be addressed.

To further the work of another positive development, the government Free and Open Source Software Policy, it is imperative that questions surrounding open access content are considered and a suitable legal framework tabled (that is, to do to culture broadly what the FOSS policy has done for software).

There are two case studies at the end of this report that highlight the potential of ICTs in South Africa. The intention behind the Free High School Science Texts (FHSST) case study is to develop free learning materials accessible to all teachers and learners in South Africa. The success of the project is highly attributable to the ICT tools that support the project.[150]

The case study of the University of South Africa (UNISA) highlights the challenges for a distance education institution which seeks to account for the needs of a diverse student profile by offering relevant learner support, facilitated by appropriate information and communications technology. The uses of ICT are indeed innovative and to be encouraged.

The common thread between both of these case studies is a lack of clarity on copyright issues – a lack of clarity which plagues and threatens these projects.

[150]See also the FHSST case study in this report, pg 203.

3. Gender-Specific Findings

The South African research was, among other things, guided by the belief that development-oriented research must be gender-sensitive. In many developing countries and societies, women are still treated highly unequally. This often results in women not having the same access to resources, including to learning materials, as men.

Essentially, the researchers understand gender as referring to the socio-cultural construction of roles and relationships between men and women.[151]

The South African research team, which consists of two female researchers and one male researcher, acknowledges the fact that even seemingly gender-neutral laws may in practice uphold existing gender discriminations. The research team also took note of the assertion made by some legal scholars that copyright laws contribute to sustaining inequalities between men and women since they were ultimately written and enforced to help men retain control over copyright protected material.[152]

Apart from developing a general awareness with regard to gender-related issues of the ACA2K project, the South African research team placed emphasis on identifying specific inequities based on gender. It was decided, however, that a deep analysis of identified inequities was beyond the scope of the current project.

The interviews conducted with main stakeholders in the copyright arena appeared to be best suited for identifying gender-specific differences and inequities. Hence, a number of gender-related questions were incorporated into South Africa's interview guides. Naturally, however, the interviewees' statements concerning this matter were primarily anecdotal and descriptive. As mentioned before, interviewees were carefully selected so as to include men and women and to ensure racial and ethnic diversity.

Notably, most interviewees had difficulties detecting a correlation between the copyright environment and its impact on access to learning materials on the one hand, and gender inequities on the other. This lack of awareness is an interesting observation in itself since it suggests that key stakeholders are from the outset not overly concerned about this issue.

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[151] IDRC (Gender and Sustainable Development Unit), 'Gender Analysis as a Development Research Tool'. Available at http://archive.idrc.ca/gender/tool.html [Accessed 30 March 2009].

[152] See, for instance, A Bartow 'Fair use and the fairer sex: gender, feminism, and copyright law' (2006) 14 *American University Journal of Gender, Social Policy and the Law* at 551-2.

Upon further inquiry, however, some interviewees shared a number of rather general observations and views with the research team. These observations and views implied that:

- gender-related matters and problems form arguably part of a much broader socioeconomic discourse which in South Africa currently centres on race inequities;
- knowledge tends to centre on male-dominated subject matter;
- the whole area of intellectual knowledge is male-dominated;
- from a cultural point of view, the classic idea behind, and the concept of, copyright protection is male;
- black women are particularly disadvantaged when it comes to receiving knowledge;
- a gender stereotype exists according to which a publisher in South Africa is a white male;
- the vast majority of publishers in South Africa are male but most of the larger educational publishing houses in South Africa are run by women;
- South African authors are mostly male.

In addition, one interviewee broadly suggested introducing an empowerment aspect into copyright law (ie, certain clauses or a whole chapter) in order to tackle some of the aforementioned issues and to remedy the wrongs of the past. The same interviewee stressed that this should not be done by the government department in charge alone, ie, the Department of Trade and Industry. Rather, 'government departments need to sit down together and put their heads together and find a way to take crosscutting effects sufficiently into account.'

In conclusion, it became apparent during our research that the gender dimensions in relation to copyright and access to learning materials are highly complex and under-explored. The under-exploration is partly due to a lack of awareness that gender discrimination can and does take place at many levels (both legal and practical) and that it takes on many forms. Some of the main issues at hand were highlighted above. Yet, much more research is necessary to fully understand and examine this important issue.

4. Conclusions

This report has documented the South African research team's findings in its bid to answer ACA2K's central research question and to test the project's hypotheses. The central inquiry was to determine to what extent, if any, South Africa's copyright environment is fulfilling the objective of facilitating access to knowledge. This central question was deconstructed into a number of secondary questions, which are fully detailed in 'ACA2K methodology guide'. The hypotheses tested by the South African research team were:

- The copyright environment in South Africa does not maximise effective access to learning materials; and
- The copyright environment in South Africa can be changed to maximise effective access to learning materials.

The examination of the impact of the copyright environment on access to learning materials, as driven by the research questions and the two hypotheses, revealed the following:

First, it is evident that access to knowledge in general, and access to learning materials in particular, are critical issues that need to be engaged with meaningfully. In recent years, these issues have started to attract more attention in South Africa. This is evidenced by the commencement of pioneering projects such as the Access to Learning Material (A2LM) Southern Africa project in 2004. The interviews and case studies conducted provided proof that this issue is on the radar of relevant stakeholders. There was a clear understanding of the issues at stake by all persons consulted. However, opinions varied as to the state of the law and the nature or extent of the impact that copyright has on access to learning materials. The opinions seemed to be informed by the nature of the person or institution interviewed, ie, opinions were dependent on whether the interviewee was a rights-holder or a user. It was noticeable, however, that most stakeholders in South Africa appear to have a balanced view, in that they acknowledge the position of the other camp. This surely is a promising point of departure for future discussions in this area.

Second, a growing body of secondary literature on the topic was identified. Notably, however, only a few legal academics have participated in the discussion so far. Most relevant articles are penned either by rights-holder associations such as PASA, or user advocacy groups and library associations. Naturally, the stance taken in these articles towards copyright

protection is often biased. The majority of the (few) legal academics dealing with copyright law and the issue of access to knowledge and learning materials appear to favour a less stringent copyright protection regime in South Africa in order to facilitate access to learning materials and foster education in South Africa.

Third, while there is a substantial amount of relevant legislation, this study found that the existing legislation is inadequate in a number of ways. It is argued that the key pieces of legislation/regulation in the area of copyright law, the Copyright Act 98 of 1978 and its Regulations, are in need of review and amendment - particularly when compared to their international counterparts. Most notably, the current Copyright Act does not make use of many of the flexibilities contained in TRIPs, and other international copyright treaties and agreements, particularly in relation to copyright exceptions and limitations. Also, the Copyright Act does also not properly address the digital environment and its challenges. In addition, the ability to promote access to learning materials by, for instance, creating adaptations of copyright-protected works for the sensory-disabled, is hindered by the threat of copyright infringement. Many existing copyright exceptions and limitations in the South African Act and Regulations – especially the provisions on fair dealing – are generally considered to be too vague by both rights-holders and users. The failure to provide clarity for fair dealing in digitised works, for instance, hinders the distribution of knowledge through the efficient distribution mechanisms of ICTs. In addition, despite progress in electronic communications access in South Africa, the Electronic Communications Act may override some important access-enabling fair dealing provisions of the Copyright Act, and thereby attach criminal liability to materials usage that is legitimated by the Copyright Act.

A positive observation from the legislative analysis is that there is legislative and policy activity to promote the access to and use of ICTs, as evidenced by the Electronic Communications and Transactions Act and the Free and Open Source Software Policy. Notwithstanding these notable developments to promote access to ICTs, it was found that such legislation and policy is to some extent either in conflict with, or insufficiently supported by, the Copyright Act.

In relation to the new Intellectual Property from Publicly Financed Research and Development Act 51 of 2008, the Act intends to provide for more effective utilisation of intellectual property emanating from publicly financed research and development. A more conducive provision for access to knowledge would have been created, however, if works

resulting from government-funded research were mandated to be in the public domain or, alternatively, publicly available at no charge within a reasonable time frame, perhaps subject to reasonable exceptions.

The provisions of the Constitution, particularly the right to education and the right to equality, are important and may be relied upon when proposing the need for legislative changes that cater for improved access to knowledge. The extent to which the Copyright Act is inconsistent with the provisions of the Constitution must be resolved.

In summary, the primary South African copyright legislation must be amended to keep pace with technological advancements and other policy and legislation related to access to knowledge. It would appear, from the interviews conducted with government officials, that more prominence is likely to be given to access to learning material in any future copyright policy or legislation amendment process. This is, however, not an easy task since even the limited number of interviews conducted for this research project provided ample proof of the diverse and often conflicting positions between different stakeholders in this respect. To complicate matters further, views differ even within the same stakeholder category, particularly between different government departments, and within the tertiary educational community – which consists of both users and rights-holders of copyright-protected materials.

Fourth, initiatives such as the Free High School Science Texts project show willingness by some sectors of society to take effective action to improve access to learning materials in South Africa.

Fifth, some higher education institutions such as the University of Cape Town (UCT) have implemented various IP- and ICT-related policies in order to comply with the current legislative requirements. These policies may serve as samples for other institutions which have not yet developed such policies.

Finally, the researchers observed a lack of directly relevant case law in the area of copyright law. It has been concluded that this is largely due to (1) difficulties that rights-holders encounter in pursuing remedies for infringement; and (2) the complexity of copyright law and the law of evidence, which make it difficult for rights-holders to secure any evidence on which to mount litigation. In addition, based on anecdotal evidence and personal experience, the interviewees opined that there is limited prosecution of offences in relation to copyright

because the track record of the Department of Trade and Industry (DTI) and the attitudes of police, customs officials and prosecutors together indicate that copyright infringement is not considered a serious offence. This means that rights-holders do not have meaningful support in pursuing cases of copyright infringement. Also, it was found that some educational institutions are unwilling to assist rights-holders to enforce their rights. Furthermore, fines imposed after convictions have been historically low and proving civil damages is a difficult task due to the lack of statistical data. The net effect of these factors has been that publishers are very reluctant to bring litigation or instigate criminal prosecutions and run the risk of substantial expense for an uncertain outcome.

It is suggested by the South African research team that the lack of debate on copyright and access to knowledge may be blamed on the currently unclear and incomplete legislative framework. A law cannot be subjected to substantial criticism if it is unclear as to what it allows and prohibits. Furthermore, such ambiguity often discourages people from reverting to the courts, since the outcome of costly court proceedings is uncertain. The lack of case law, in turn, aggravates the current legal ambiguity. It appears that as a result, most people just do whatever they think is allowed under the current South African copyright regime – regardless of whether their assumptions are correct or not.

In summary, therefore, it is fair to state that both of the research hypotheses tested are accurate in describing the current situation in South Africa. In other words, the copyright environment in South Africa does *not* maximise effective access to learning materials and *can be changed* in order to maximise effective access to learning materials.

5. Annexure: Case Studies

5.1 Access to Learning Materials: Challenges of a Historically Disadvantaged University: University of Limpopo

The University of Limpopo (formerly University of the North) is located in the Northern Province of South Africa. During apartheid it was under-resourced as part of a deliberate government policy to disadvantage black people.[153] In 2005 it was merged with the Medical University of South Africa (Medunsa).[154] While the university has overcome many of its historical disadvantages it still faces considerable challenges. One of these is that many of its students are unable to afford the prescribed textbooks required for their studies. This is compounded by the fact that the university itself is not in a position to purchase enough multiple texts to fully meet student needs.

In August 2008, press reports stated that the University of Limpopo had purchased a Xerox Nuvera 144 Digital Production System that permitted it to copy entire textbooks with a saving of 94 per cent on the cost of purchasing original texts.[155] This was lauded as being progressive as it would enable previously disadvantaged students to access texts which they could not otherwise afford. It was also stated that this was the first time this particular Xerox machine had been deployed in the country. As a result of these reports, DALRO and its attorneys wrote to the university to ascertain whether or not there was a breach of the licence held by the university.[156]

No further press reports have been published on this matter and it appears that the matter has been satisfactorily resolved. Whilst DALRO was certainly within its rights in making such enquiries, this incident illustrates how some universities experience the copyright environment.

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[153] 'Transforming tertiary education' (2003) South Africa.Info, Available at http://www.southafrica.info/ess_info/sa_glance/education/higheredplan.htm [Accessed 30 March 2009].

[154] Kader Asmal, Government Gazette No. 25737 14 November 2003 Notice No. 1703; Statement by the Minister Of Education, Professor Kader Asmal, on the transformation and reconstruction of the higher education system, Pretoria, 9 December 2002. Available at <http://www.polity.org.za/article.php?a_id=30772> [Accessed 30 March 2009].

[155] For example see 'University of Limpopo adds Xerox Nuvera' (2008). Available at <http://www.graphicrepro.co.za/asp/news_long.asp?nid=10431> [Accessed 30 March 2009].

[156] Anecdotal evidence from industry sources.

5. 2 Distance Education

University of South Africa (UNISA)

This case study briefly discusses the University of South Africa (UNISA), Africa's leading distance university which offers certificate and degree courses in several subjects including animal health, agriculture, law, business, education and the humanities, to an estimated 250,000 students[157] in South Africa and other African countries. Emphasis is placed on the challenges with the old system of 'distribution of print study guides' as accounted for by a UNISA graduate and the university's identity as an Open Distance Learning Institution. The general aim in compiling this case study is to record the challenge of access to learning materials by distance learners in South Africa and, in brief, highlight aspects of the experience of this university in its address of this challenge.

The University of South Africa defines itself as an Open Distance Learning institution. According to the UNISA website,[158] this refers to an approach or philosophy which combines the principles of learner centeredness, lifelong learning, flexibility of learning facilitation provisioning, removal of barriers to access, recognition of prior learning, provision of relevant learner support, and construction of learning programmes in the expectation that learners will succeed; and the maintenance of rigorous quality assurance over the design of learning materials and support services.

The UNISA mission statement states;[159]

> The University of South Africa is a comprehensive, open learning and distance education institution, which, in response to the diverse needs of society […] [a]ddresses the needs of a diverse student profile by offering

[157] 'Study South Africa' International Education Association of South Africa (IEASA) and Higher Education South Africa (HESA). Available at <http://www.studysa.co.za/contentpage.aspx?pageid=4137> [Accessed 30 March 2009].

[158] 'Open Distance Learning' (2009) Unisa Online,. Available at http://www.unisa.ac.za/default.asp?Cmd=ViewContent&ContentID=20566 [Accessed 30 March 2009].

[159] Available at http://www.unisa.ac.za/contents/studyinfo/docs/download/calendar_2009/6_2009_e.pdf [Accessed 30 March 2009].

relevant learner support, facilitated by appropriate information and communications technology […].

The following represents examples of the way in which UNISA has deployed information and communication technologies for the delivery of course-related resources to students.

The UNISA Toaster

The UNISA Toaster (derived from the Freedom Toaster)[160] is a content delivery kiosk that allows students to choose and burn relevant course content onto CDs, DVDs or USB flash drives using an easy touch-screen interface. Students simply enter their student numbers onto the touch-screen interface, which then displays their curriculum in digital format. The student chooses the information he requires and then burns it onto CD, DVD or USB flash drive.

My UNISA Online

This online portal was developed by the university to improve communication between lecturers and learners. Among other things, the portal provides access to administrative information, courseware, subject-related academic guidance, discussion groups, listings of recommended books, an e-bookshop for purchase and sale of textbooks, examination results and dates, and financial records.

Videoconferencing

According to a paper presented in 2004, '[i]n the last three years the average usage of video conferencing at Unisa was measured as 600 sessions per year, with an average of 70 departments using the system.'[161]

The paper listed the uses of video conferencing in respect of post-graduate guidance, oral examinations (for supplementary examinations and special needs learners), interviews for

[160] Freedom Toasters are preloaded to dispense free digital products, including software, photography, music and literature.

[161] H Wilson 'Videoconferencing at UNISA: Synchronous real-time discussions for student support' (2004) e-merge 2004 conference presentation. Available at http://emerge2004.net/connect/site/UploadWSC/emerge2004/file78/wilson.pdf. [Accessed 30 March 2009].

positions, training of staff in remote centres, or discussions around collaborative agreements.

Mlearning

A paper presented by Willa Louw, the Coordinator for Learning Development at UNISA's Institute for Curriculum and Learning Development, titled *Taking the Distance Out of Distance Education through the Means of Mlearning*, states:[162]

> Albeit that the distance education learners in the South Africa are diverse, almost all learners have access to a cell phone, to either send or receive a text message and that it is a relatively cheap method of communication. UNISA communicates with students via sms through a certain University's Learning Management System and it costs about twenty two cents to reach a learner by sms.

Efforts related to students with disabilities

Further notable efforts include those related to students with disabilities. Just over 1 000 of the 250 000 UNISA students have disabilities.[163] UNISA makes available study material in Braille and on audio tapes for the benefit of students with visual or hearing disabilities, and 'a dedicated support has been in place since 2002' to address the need of such students.[164]

In summary, UNISA has made positive and noteworthy strides towards improving access to learning resources through the use of ICTs. Despite such strides, however, significant challenges remain.

The following is an insightful UNISA graduate's perspective on the challenges regarding prescribed textbooks required for preparation for examinations, more notably, the costs of such textbooks being too high and that the copies available UNISA are too few.

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[162] Available at http://www.mlearn.org.za/CD/papers/louw.pdf [Accessed 30 March 2009].

[163] UNISA Online, 'Students with disabilities'. Available at http://www.unisa.ac.za/default.asp?Cmd=ViewContent&ContentID=19898 [Accessed 30 March 2009].

[164] Ibid.

Each course has a study guide that is provided to students at the beginning of the semester. The cost of these study guides are incorporated into the tuition fees. The study guides typically refer to prescribed texts which are invariable written by Unisa lecturers. Prescribed textbooks are difficult to source through the library because they are in demand. Further, it is not possible to book or reserve these books. One may only borrow them if one is lucky enough to find the text on the shelves in the library. To avoid such problems students have to purchase the texts. The cost of these texts is high. For example, the prescribed text for a postgraduate strategic management text retailed at about R400 in 2007. Typically a postgraduate student in management studies does five courses to complete the course. If each course requires a student to purchase a R400 text, a student will need to spend about R2000 on texts in addition to paying tuition fees. For many this is too expensive. A typical undergraduate degree at Unisa consists of 32 courses and the total cost of prescribed texts required is also quite high.[165]

[165] Based on an informal discussion with a UNISA graduate, on 31 October 2008, who undertook both undergraduate and postgraduate studies with Unisa.

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CHAPTER 3 - Access to Learning Materials in South Africa: The convergence of developmental and rights-based arguments for access to knowledge.

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Access to knowledge (A2K), as a global movement with its origins in open source software and the critique of oligopolistic practices in the knowledge industries, might easily be seen by some spectators as concerned primarily with freedom and content diversity[166]. Firstly, increased access to knowledge may be seen as a prerequisite for freedom of expression, since participating in certain discourses (such as that of science) requires access to the existing knowledge base. Secondly, the strategies for increasing access to knowledge typically divest control from publishers and traditional gatekeepers, increasing the diversity of available knowledge products. Advocates of A2K tend to be drawn towards arguments from rights and diversity rather than economic arguments. Yet if the economic advantages of increased access are not spelt out, there is a danger that developing nation technocrats will regard efforts to expand access to knowledge as a relative luxury. This is especially likely given that some experts argue that strengthened intellectual property rights are an essential mechanism for greater economic development. On the contrary, the relationship between intellectual property rights and economic development is a complex one, and there is a strong case to be made for reaching the right balance between access and intellectual property protection through attending to the specific economic needs of particular developing nations and regions.[167]

The aim of the present article is to argue that in the South African context, A2K has much to

[166]But cf Jack Balkin, 'What is access to knowledge? Presentation at the Yale Information Society's Access to Knowledge 2006 conference.,' *Balkinization*, April 21, 2006, http://balkin.blogspot.com/2006/04/what-is-access-to- knowledge.html - Balkin presents economic development as a priority of A2K, and then argues that liberty should be seen as an equally important priority.

[167]See Daniel J. Gervais (ed.), I*ntellectual property, trade and development. Strategies to optimize economic development in a TRIPS-Plus Era.* (Oxford: Oxford University Press, 2007) *passim.*

offer economic development in the form of improving access to learning materials, which constitute the basic resources of education. It is likely that the analysis made here is of relevance to other Southern African countries. Although South Africa is often perceived as in some ways different from its neighbours, in fact many developmental challenges are shared, and the legal and regulatory environment is sufficiently similar to draw fruitful parallels. Indeed, it may be useful to compare the current analysis with the situation in more widespread developing countries.

Nevertheless, the article will draw on the specificities of South African law and education in order to paint a more detailed picture of how access to knowledge is tied to developmental goals. A growing access to learning materials movement (A2LM) in South Africa has sought to show that the current regulatory environment imposes limitations on access to basic education resources: textbooks, teaching guides and books in general are overpriced, unavailable in indigenous languages, irrelevant to local contexts, and inaccessible to special needs groups such as the print disabled. Scholars and students who might normally access textbooks and other books through personal photocopying, mass photocopying or third-party photocopying are restricted from doing so, either by copyright law, narrow interpretations of copyright law, or end-user agreements between rights holders and libraries. Those who would create cheap, relevant teaching aids are often prevented from doing so by the chilling effect of copyrights in source materials.

It is widely acknowledged in South Africa that, even as the second decade of democracy draws reaches its midpoint, education systems at primary, secondary and tertiary levels remain vulnerable and that the extent of learning is insufficient for economic growth. A primary goal of A2K in this country should therefore be to clarify its developmental concerns to policy makers by way of research that takes into account facts about local needs and contexts and shows how extending access to knowledge and learning materials can further developmental goals. However, the movement should not neglect its concerns with the advancement of abstract liberties and the protection of legal rights, which remain an important moral component of access to knowledge. The South African Constitution compels the state to not only respect but also to ‘promote and fulfil the rights in the Bill of Rights’.[168] This active obligation on all governmental institutions ensures that arguments premised on human rights and social justice have a unique efficacy in South African political dialogue. In

[168]Section 7 of the Constitution of the Republic of South Africa Act of 1996 ('the Constitution').

other words, A2LM uniquely embraces the development, liberty and social justice strands of the A2K discussion, and is therefore a particularly vital point of departure for coalition-building and policy change. The first part of this article sketches in more vivid detail the current predicament of South Africa's education system, at all levels: primary and secondary schools, and higher education institutions. The country's high levels of socio-economic inequality are now notorious. This first part shows that these inequalities are also present in the provision of basic and advanced education, and in particular that they hamper development and economic growth. The second part of the article explores the definition of access, and reviews the connection between intellectual property rights and access to knowledge. It then focuses on the growth of a local debate about access to learning materials, examining the critiques set forth by the various participants in the A2LM movement and directed at the intellectual property regulatory framework.

It also explores the responses to these criticisms made by the publishing industry and the authorities. This section is also concerned with economic aspects of the debate, and argues that further, localised research of this kind could bolster the case for reforms that have the goal of expanding access to knowledge. In particular, this part of the article seeks to set out the kinds of research that could be useful to furthering the impact that A2LM has on policy makers. The third part of the article enters into an analysis of the constitutional framework as relevant to access to education. Of particular interest is the structure of the right to education, the South African courts' interpretation of the other socio-economic rights contained in the Bill of Rights, and comparative jurisprudence that may influence future adjudication in terms of this right. The article concludes by noting that, while constitutional arguments have a certain primacy in political dialogue and seem to favour the case of A2LM, when these arguments have as their object the provision of socio-economic benefits they increasingly rely on evidence about costs and benefits of governmental policies. Thus constructing a constitutional argument in favour of expanded access to learning materials will ultimately rely on the aforementioned empirical research for its success both in the courts and in policy making forums.

1. The state of education in South Africa.

This section adopts the practice of the Human Sciences Research Council's Human Resources Development Review, 2008 in dividing education into three tiers: high skills (higher degrees and postgraduate), intermediate skills (post-matriculation,[169] pre-degree certificates and diplomas) and entry level skills (pre-matriculation)[170]. This is similar to the state's National Qualifications Framework, which distinguishes between General Education and Training (including Adult Basic Education and Training, or ABET, and grades 0 through 9), Further Education and Training (grades 10 through 12, as well as diplomas and certificates earned at technical colleges, private colleges and community colleges) and Higher Education and Training (all undergraduate and postgraduate university degrees).[171] As the Human Resources Development Review points out, enthusiasm for the 'new economy' should not neglect the fact that entry-level and intermediate skills are the most heavily utilized by our economy, and currently underprovided.[172] This section will describe challenges that exist at each level of education, as well as within special needs groups, and reflect on the country's progress in achieving developmental goals. However, more attention will be focused on the lower tiers of the education system, since it is basic education that is most vital at this stage of the country's development.

Education, race, and the economy.

Before proceeding, it is necessary to contextualize the most visible characteristic of South African education, running across all the aforementioned levels. Education, like much else in South African society, continues to be marked by conspicuous disparities that are closely correlated with race.[173] One of the key policies of Apartheid was to segregate education and provide inferior education to black South Africans, as a way of ensuring a pool of unskilled

[169] 'Matriculation' refers to graduation from the final year of the South African high school system.

[170]Andre Kraak and Karen Press, eds., *Human resources development review 2008. Education, employment and skills in South Africa.* (Cape Town: HSRC Press, 2008), v-vi.

[171]'Education in South Africa – SouthAfrica.info, http://www.southafrica.info/about/education/education.htm (last accessed 15 August 2009).

[172] Kraak and Press, vi.

black labour for white capital accumulation. This resulted in some of the most vociferous anti-apartheid struggles being waged by youth and centering on education.[174] By the 1980s the education system for blacks was in crisis, as a result of government policy and student resistance.[175] Since democratisation in 1994 the post-apartheid government has expended much effort in transforming the education system, but many are critical of the results. Inequalities and inadequacies persist.

Such deficits in the education system are one of the key reasons why poverty increased after democracy (and only decreased slightly in the early 2000's due to expansion of social security transfers), and why despite relatively high levels of economic growth between 2002 and 2007 income inequality has in fact worsened.[176] Between 1991 and 2001 the Gini coefficient for the entire population increased from 0.68 to 0.77;[177] some fear that the measure

[173]There is some debate as to whether disparity within South African society is more accurately represented by race or class. Linda Chisholm, 'Racial redress means different things for different schools: case studies of five Gauteng schools.' (2008) *HSRC Review 6*(2), http://www.hsrc.ac.za/HSRC_Review_Article-97.phtml (last accessed 15 August 2009). Chisholm's work implies that even when access to formerly white schools opens up, the poverty of black students remains an obstacle to their progress. Race is therefore far from being erased. Yet there is a growing black middle class. As Jeremy Seekings notes, '[t]he rich are no longer all white, even if almost all white people are still rich.' Jeremy Seekings, 'Poverty and inequality after apartheid.' CSSR Working Paper No 200. (Centre for Social Science Research, 2007), available at http://www.sarpn.org.za/documents/d0003024/Poverty_inequality_Seekings_Sep2007.pdf (last accessed 15 August 2009),

[174]M Saleem Badat, *Black student politics, higher education, and apartheid. From SASO to SANSCO, 1968 - 1990.* (Pretoria: HSRC Press, 1999) passim; Sean Morrow, Brown Maaba, and Loyiso Pulumani, *Education in exile. SOMAFCO, the African National Congress school in Tanzania, 1978 to 1992.* (Cape Town: HSRC Press, 2004), 7-10.

[175]Peter Kallaway, ed., A*partheid and education. The education of Black South Africans.* (Johannesburg: Ravan Press, 1984), Ken Hartshorne, *Crisis and challenge. Black education 1910-1990*. (Cape Town: Oxford University Press, 1992).

[176]Seekings; Kermyt G Anderson, Anne Case & David Lam (2001) 'Causes and consequences of schooling outcomes in South Africa: Evidence from survey data' *Social Dynamics* 27(1), 37-59.

[177]Human Sciences Research Council, 'Fact sheet. Poverty in South Africa.' (Human Sciences

underestimates the true extent of inequality.[178] Unemployment has risen steadily since 1994 and, at 41% under the expanded definition,[179] is the highest in the world barring Iraq.[180]

Another characteristic of education in South Africa is that it is increasingly inefficient, and not well coordinated with the needs of economic development. Non-economic measures affirm the fact that post-apartheid growth has not been an unequivocal success story. Contrary to the perception of many South Africans, South Africa does not perform better than its African peers on measures of human development. The United Nations Development Programme measures well-being with its Human Development Index (HDI), which takes into account educational attainment, life expectancy, and GDP per capita adjusted for purchasing parity. South Africa's HDI has decreased steadily from 0.745 in 1995 to 0.674 in 2005, placing it 121st out of 177 nations.[181] Despite an initial growth in the education and training sphere in the years after democracy (represented by, for example, the state's restructuring of higher education institutions and an increase from 0.6 to 0.87% of GDP being spent on research by the state and business), this growth has now reached a plateau, sometimes described as 'expansion saturation'.[182] Whereas government expenditure on infrastructure and social services expanded significantly between 2001 and 2005, expenditure on education grew only 1% in the same period.[183] A longer term perspective shows growing inefficiency in the teaching of entry-level and intermediate skills: despite large increases in the education

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Research Council, July 26, 2004), http://www.sarpn.org.za/documents/d0000990/P1096-Fact_Sheet_No_1_Poverty.pdf (last accessed 15 August 2009).

[178]Seekings, 11

[179]This includes those eligible for the labour force who would prefer to work but are not 'actively' seeking work.

[180] Seekings , 16

[181] United Nations Development Programme, 'United Nations Human Development Report 2007/2008.' (Palgrave MacMillan, 2007), 229-237.

[182]Kraak and Press, 2.

[183]Ibid., 3. Indeed, taking a longer view, public expenditure on education as a percentage of GDP fell from 5.9% in 1991 to 5.4% in 2005 - United Nations Development Programme (note 16), 267.

budget since 1960, there has been a sharp decrease in matric pass rates in the same period.[184]

In particular, there are low matriculation rates, low levels of enrolment in institutions providing intermediate skills, stasis in enrolment at higher education institutions, and poor throughput rates at all levels.[185] One of the most pressing features of the current economic scenario is the mismatch between the amount of and kinds of skills being provided by the system and the kinds of skills needed by an economy which has been growing relatively rapidly compared to its performance a decade ago. This has resulted in a situation that has been tagged locally as 'the skills crisis'.

ASGISA, the socio-economic policy adopted by the government in 2005, recognized stasis in education and training as the 'fatal constraint' of further growth.[186] Key features of ASGISA's sectoral interventions to promote growth are premised on the expansion of skills in the economy.[187] Thus the skills crisis jeopardizes growth. Indeed, unemployment poses a problem for not only economic development but political stability. While employment has been growing, it has been growing at a significantly lower rate than the increase in job seekers. Between 1995 and 2005, while almost three million jobs were created, more than twice this number of new job seekers entered the labour market.[188] Note once again that these failures of the system disproportionately affect black South Africans. Thus inequality not only jeopardizes economic growth and political stability, but also represents for many citizens the continuity of racial injustice.

Entry level skills

The Bantu Education Act of 1953, one of the centrepieces of the Nationalist Party's social programme of apartheid, prevented African schools from being publicly funded unless they taught from the Bantu Education curriculum. This curriculum was designed to teach only

[184]A.P. de Villiers, 'South African Education: A Principal - Agent Problem' (1999) *South African Journal of Economics 67(3)*, 169-177.

[185]Kraak and Press, 11-20.

[186]Ibid., 7.

[187]Ibid., 10.

[188]Ibid., 4; Haroon Bhorat and Morne Oosthuizen, 'Employment shifts and the 'jobless growth' debate.' in Kraak and Press, 50-68.

elementary skills of use to those entering the market for manual labour. As the architect of apartheid policy, President H F Verwoerd, put it:

> There is no place for [the African] in the European community above the level of certain forms of labour … for that reason it is is of no avail for him to receive a training which has as its aim absorption in the European community, where he cannot be absorbed.[189]

These discriminatory education practices continue to have consequences today. Around 12.3 million learners attend South Africa's 26 292 schools.[190] At public schools (24 992 of the total) the ratio of scholars to teachers is on average 32.6 to 1.[191] Yet this average hides the disparity between schools that were previously reserved for whites and those that were part of the Bantu Education system. Typically, the latter schools have low numbers of suitably qualified teachers, classrooms, and textbooks. One case study of a school in Soweto (an urban township in South Africa) reported that amongst 450 students, none owned their own textbooks, and for one subject only two textbooks were owned by the school administration.[192] Another study reports that on average one textbook is available for every five students.[193] Only 43% of South African schools have electricity, 20% have libraries, and 12% have computers.[194] In addition, those who live in urban areas are often blind to the conditions of rural communities, who for all intents and purposes live in a parallel world. In 2004 the Nelson Mandela Foundation published the results of research conducted across 595 households and in nine school sites across three provinces. Each of the sites was selected

[189]Frank Molteno, 'The historical foundations of the schooling of Black South Africans.' in Peter Kallaway (ed) *Apartheid and education. The education of Black South Africans*. (Johannesburg: Ravan Press, 1984), 92.

[190]Education in South Africa – SouthAfrica.info'.

[191]Ibid.

[192]A Prabhala, 'Access to knowledge in Southern Africa', presentation at the African Copyright Forum, Kampala, 28-30 November 2005.

[193]Servaas van der Berg and Ronelle Burger, 'Education and socio-economic differentials: a study of school performance in the Western Cape.' (2003) *South African Journal of Economics 71(3)*, 496-522.

[194]Prabhala.

because it typified the rural experience of those areas that had fallen within the former homelands.[195] Average teacher:learner ratios for these schools were around 40:1, significantly higher than the national average (49:1). A number of imbizos (public forums) and interviews revealed how community members, teachers and learners felt about rural schools. Here follow some of the comments made:

To have a better education we need plenty of learning and teaching materials, just like in schools in urban areas. Urban schools have everything and as a result children receive both theory and practice at the same time. We are forced by the situation to use old-fashioned methods of teaching because we don't have materials. We need laboratories and libraries.[196]

Maybe science and technology could be offered in our mother tongue. Then learners wouldn't fail. They would understand from the beginning: at the moment they struggle with an unfamiliar language that makes learning difficult. Our mother tongue is really important. Countries such as Japan and China use their mother tongue, whatever they do. This should also be done in the new South Africa.[197]

I want us to have both electricity and water pipes that are connected so as to make learners come and study in the evenings during exam time to prevent them from failing. …. The school needs to be supplied with tables and chairs, desks, toilets, windowpanes, doors that are good and also books to read and write in. We also need rubbers, pencils, crayons and a heater to keep us warm on cold days, as well as computers in the school.[198]

Household poverty presents enormous barriers to the education of children at these sites: typically schools in these provinces charged R50 – R100 ($6-$12) per year, which was unaffordable for many of the surveyed households. In addition, poverty meant that children went to school hungry, couldn't afford uniforms, or could not attend school because they

[195]The homeland or bantustan system, a central feature of the strategy Grand Apartheid, confined Black South Africans to overpopulated rural areas 'outside' of the Republic of South Africa, despite the fact that many had not been born or lived in these areas. These areas have now been consolidated into the new provincial structure of the country, but remain underdeveloped.

[196]*Emerging voices: a report on education in South African rural communities* (Cape Town: HSRC Press, 2005), 6.

[197]Ibid., 11.

[198]Ibid., 19.

were assisting their households.[199] Ill-health, exacerbated by the HIV/AIDS epidemic and poverty, constitutes the main reason for school absenteeism.[200]

Furthermore, of the teachers surveyed by the project, 71% said that their biggest obstacle to better teaching was the lack of teaching aids.[201] The report expands:

> The lack of teaching aids is an issue that arises again and again in the participatory research. textbooks are one of the most central teaching aids and an extremely important source of learning but they need to be accessible and understandable and the values embedded in them need to respect everyone equally.[202]

In the province of KwaZulu-Natal, 41% of learners report being unable to understand their textbooks easily.[203] From observation reports included in the research, this seems to be on account of language.[204] It is this appropriateness of textbooks which seems to be the major problem. Indeed, 93% of schools report that they actually have textbooks. Secondary materials are less likely to be available. Only 56% of schools had access to teaching guides, 49% to maps and charts, 10% to toys and games, and 5% to libraries. In addition, these statistics gloss over particular cases. In one community covered by the report, participatory research showed that textbooks were only available for some subjects, had to be shared between learners, and often could not be taken home by learners.

Thus, even if textbooks are physically available in many schools, they are not necessarily optimally *accessible* and *appropriate.* A major factor in the stark inequalities and poor attainments in the education system is language. The South African Constitution recognises 11 official languages, nine of which are indigenous African languages.[205] Although the

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[199]Ibid., 50 et seq.

[200]Ibid., 56.

[201]This was the most popular response after 'lack of co-operation from parents', 60%, and 'poor infrastructure' , 59%. Ibid., 84.

[202]Ibid., 84.

[203]Ibid., 88.

[204]Ibid., 89.

[205]The other two are English and Afrikaans, an indigenous language derived from Dutch that had been

Constitution requires that the state 'elevate the status of and advance the use of' these languages,[206] their continued marginalisation in the sphere of secondary and tertiary education is a prime obstacle to the achievement of equality and development. Learners (and their parents) differ about whether they should be taught in English, Afrikaans, or indigenous mother tongues, but recent educational research shows that mother tongue education is critical in early development.[207] Neville Alexander, who has led the campaign for mother tongue education in South Africa, points out that since there is little communication in English in rural communities, it is much more important for the cognitive development of learners that they are taught in the mother tongue.[208] This is complicated by the fact that indigenous languages in rural areas are fragmented into dialects, and learners struggle with the official version of the language.[209]

It is not simply the availability and accessibility of textbooks that is a problem, but of books generally. Educational research shows that students grappling with English as an additional language have the greatest chance of success if exposed to a wide range of stimulating books. The READ project, which supplies book collections to South African schools, found that supplying books at a cost of R55 per child could improve reading ability by 2- 3 reading

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privileged under white minority rule. Before the attainment of democracy in 1994, English and Afrikaans were the only official languages, and all business and schooling were conducted in them. In 1994 it was estimated that half of the South African population understood neither English nor Afrikaans; see Department of Education South Africa South Africa's new language policy (1994) quoted in Mary Gilmartin, 'Language, Education, and the new South Africa' (2004) *Tijdschrift voor Economische en Sociale Geografie 95(4)*, 405 at 407. Less than nine percent of the population speak English as a home language – T*he People of South Africa: Population Census '96* 3rd ed. (Pretoria: Statistics South Africa, 1999).

[206]s 6(1) of the Constitution of the Republic of South Africa of 1996.

[207]H Alidou, A Boly, B Brock-Utne, YS Diallo, K Heugh. HE Wolff, 'Optimising learning and education in Africa – the language factor', report for the Association for the Development of Education in Africa 2006 Biennial meeting (2006), available at http://www.aidtransparency.org/at/content/view/1053/222/lang,en/ (last accessed 15 August 2009); *Emerging voices*, 94.

[208]*Emerging voices*, 94-95.

[209]Ibid., 95.

years, and increase grade 5-7 pass rates by more than 15%.[210] Yet in South Africa, books are expensive, both for individuals and institutions. In 2005, a copy of Nelson Mandela's *Long Walk to Freedom* cost R150 in South Africa, whereas the same book would cost the equivalent of R95 in India and only R75 in the United States. The South African price represents 6.5% of the South African GDP/capita, while the US price represents only 0.2% of the US GDP/capita.[211] In addition there is a small number of books being published in indigenous languages, because publishers claim that the market is too small.

Finally, it is not only young scholars who face such obstacles to education. An important part of entry-level skills training is the imparting of skills to adults who did not complete their schooling or who are not functionally literate. The experience of the Adult Basic Education and Training programme and the South African National Literacy Initiative has been that there are several barriers to people taking part in literacy programmes: lack of basic infrastructure and electricity, undermotivated teachers, multilingualism, and the cost of learning materials.[212]

Intermediate and high skills

Low levels of grade attainment mean that few write the matric exams, written in grade 12 and a minimum requirement for study at a tertiary institution.[213]It is true that matriculation pass rates have increased since 1994. However it is also commonly acknowledged that the increase is due to ‘grade inflation’, or the weakening of exam standards. Despite the increasing pass rates, scholars flounder in key subjects. Only a quarter of students who passed matric passed mathematics, and South African students perform worse at mathematics than

[210]D Botha 'READ and access to learning materials', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[211]The book would have to cost R2550 in the US if it were to represent the same percentage of GDP per capita. See A Prabhala, 'Access to knowledge in Southern Africa', presentation at the African Copyright Forum, Kampala, 28-30 November 2005.

[212]B Thumbadoo, 'The State of Access to Learning Materials in Southern Africa', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[213]Anderson, Case & Lam.

students in poorer neighbouring countries.[214] There are 24 tertiary education institutions, with more than a million students registered.[215] Partly due to these obstacles at the level of primary and secondary education, participation rates in higher education are comparable to those of other developing nations[216] – even though SA boasts some of the finest higher education institutions in the world.[217] The 1996 Census reports that only 6% of the population have some sort of post-school educational qualification.[218]

Access to knowledge in institutions of higher education does not compare favourably with institutions in the developed world. Libraries typically have limited access to electronic databases, as is the case for other African countries.[219] Anecdotally it seems that there are disparities in access that correlate with whether an institution was relatively privileged or not in the past. In addition, students, who already struggle with high tuition costs and the opportunity costs of not working for three to six years, must also pay extremely high prices for textbooks. A first year law student can expect to pay around R2500 for textbooks (about $300), almost one third of the South African GDP per capita. Universities are reluctant to provide photocopied materials to students in the light of copyright law and end-user

[214]Seekings citing unpublished work by Nick Taylor. Young South African learners also perform far below the international average in mathematics and science – see *Highlights from the Trends in International Mathematics and Science Study (TIMSS) 2003*, National Centre for Education Statistics (2004).

[215]"Education in South Africa – SouthAfrica.info".

[216]Note again that there is a large disparity in percentages of the black and white populations participating in higher education. I Scott, N Yeld & J Hendry '*Higher Education Monitor: a case for improving teaching and learning in South African higher education*' (Pretoria: Council on Higher Education, 2007).

[217]Six South African universities can be counted in the top 1% of the world's higher education institutions, as ranked by citations analysis of scientific publications (Anastassios Pouris 'The international performance the South African academic institutions: a citation assessment', (2007) *Higher Education 54, 501-509*.).

[218]*Population Census '96.*

[219]JA de Beer 'Open Access scholarly communication in South Africa' MPhil thesis, University of Stellenbosch (2005), 42.

agreements with publishers.

Finally, it should be noted that there is presently a large number of distance learners. Distance learning institutions exhibit the lowest graduation rates of all institutions at this level.[220] While there are a number of factors that may account for this differential, it is plausible that greater access to learning materials may improve the experience of at least some distance learners, decrease the costs of providing distance learning, and therefore encourage those who cannot access traditional universities to study for an additional qualification.

Special needs

Another under-resourced community is that of special needs students. A wide category of such students, including the visually impaired, the paralysed, and dyslexic readers, might require specialised reading material. Intellectual property rights can limit access to specialised formats. For example, visually impaired students find it difficult to access books in Braille, or electronic and recorded versions of books in print, because intellectual property rights create barriers to creating derivative works of existing textbooks and other published materials. Often the market for such derivative works is not large enough to create incentives for traditional publishers to supply them.

Technology exists for special needs institutions, schools and individuals to create Braille versions of existing learning materials. yet copyright law remains an obstacle.

2. The A2LM debate in South Africa.

Advocates for A2LM see the availability and accessibility of learning materials as a pivotal aspect of improving the current state of education in South Africa. Access to learning materials means that learning materials must be affordable, available, relevant, available in an inclusive range of languages, and available in formats suitable for use by the print disabled.[221] As the last section has illustrated, access to learning materials in South Africa is deficient in

[220]Scott, Yeld & Hendry.

[221]A Prabhala, 'Defining access to learning materials', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

all aspects of this definition. Books and educational resources are often prohibitively expensive, and difficult to obtain. Libraries at all levels are under-resourced, and university access to electronic scholarly databases is often limited. Textbooks are not available in local languages, and learning materials are not always oriented towards local contexts and concerns. Finally, learning materials for the print disabled, such as Braille textbooks, are also prohibitively expensive or difficult to obtain. This section begins by reviewing the connection between access to knowledge and intellectual property rights, and the arguments made by the A2LM movement with regard to remedying low access. A short overview of the economic perspective on intellectual property and development is given. This is followed by an examination of the two areas where A2LM has had greatest presence in South Africa so far: open licensing models, and advocacy for copyright law reform.

Intellectual property rights and access to knowledge

The Access to Knowledge movement has shown in other realms that intellectual property frameworks play a large role in producing such consequences. Traditional economic theory suggests that by creating monopoly rights in knowledge goods, intellectual property rights make possible market transactions and therefore allow knowledge producers and publishers to profit from the sales of knowledge goods, incentivizing the creation and publication of such goods. However, this story elides several vital features of knowledge goods and intellectual property laws. Firstly, knowledge goods are unlike physical goods in that they are 'non-rivalrous' (can be consumed by many people without being exhausted) and the marginal cost of production rapidly reaches zero. Since knowledge goods have positive externalities, markets with monopolistic producers are likely to produce even less optimal amounts than markets with monopolistic producers of traditional physical goods. In other words, there is a strong case for state intervention in the production of knowledge goods.

Secondly, it is widely acknowledged that the production of new knowledge requires access to the existing knowledge base. Intellectual property laws have typically been designed to provide a balance between incentives to knowledge producers and access to the public, since the public consists of potential knowledge producers. Ensuring the free flow of knowledge is not only beneficial to a society for its own sake, but ensures the continued production of knowledge. However, with the emergence of strong lobby groups for the oligopolistic

publishers that dominate markets for knowledge goods, intellectual property laws have been rapidly changing in the direction of strengthened monopoly rights for publishers, restricting access to knowledge. This has been exacerbated by the tendency of economic analyses to ignore the potential and actual inefficiencies of unregulated market provision of knowledge goods.

Thirdly, it is increasingly recognised that different stages of economic development require different levels of intellectual property protection. Developed countries whose intellectual property frameworks are highly biased towards publishers have generally benefited in the past from frameworks that were highly biased towards consumers. It is highly likely that developing countries could benefit from frameworks that ensure access. Knowledge goods are overwhelmingly produced by developed countries, and consumed in the developing countries. It will be difficult for efficient knowledge production to emerge in the future in developing countries without allowing adequate access to knowledge goods now. However, the bargaining power of developed countries in trade negotiations ensures that unfavourable intellectual property frameworks, such as TRIPS and various bilateral and multilateral Free Trade Agreements, are imposed upon developing nations. In response to shrinking access to knowledge, A2LM advocates point to a number of solutions. Open licensed textbooks and alternative publishing models based on open licences may in the long run provide greater access to knowledge at all levels. Open licences typically rely on existing intellectual property laws such as copyright, but allow users to share works, reproduce and disseminate them freely and without payment, and even to produce derivative works and 'remixes'.

Traditional business models for publishing require the market incentives of intellectual property law. Open licences prompt new business models in which publishers profit from the relationships they build with audiences, rather than the sale of goods.

Less radically, changes in the regulatory framework, specifically with regard to the fair dealing exemptions enumerated by the Copyright Act,[222]might provide immediate relief: fair use exemptions aimed at special needs groups, or allowing parallel imports. Exemptions such as these might allow institutions and individuals to create urgently needed derivative works without the permission of publishers: Braille versions of books, or indigenous language translations of textbooks. Other remedies have been suggested. In the past, government procurement practices have resulted in the unequal distribution of textbooks. Procurement of

[222]Act 78 of 1978.

textbooks costs the South African government R1 billion a year – a significant portion of the education budget. It has been acknowledged by the Department of Education that textbooks are the most significant factor in increasing learning, and that in the light of the costs of textbooks, the publishing industry may not be sufficiently competitive.[223] Each of the nine provinces submit requests for textbooks separately, and without coordination. The decentralised nature of procurement results in smaller print runs, preventing economies of scale and resulting in higher costs. Imported books are also priced highly because of exchange rate volatility, 14% VAT and 10-13% shipping and freight charges.[224] Rather than centralising procurement, there should be greater coordination of the timing of procurement requests.

Furthermore, it is claimed that publishing industry practices result in high prices and irrelevant learning materials. This should be investigated. For example, there have been calls to investigate the possibility of a Competition Tribunal complaint, since the high concentration of the publishing industry is deemed responsible for excessive pricing.[225] The Consumer Institute of South Africa's project on Access to Learning Materials in Southern Africa considered whether competition policy should be invoked against the local publishing industry.[226] Further research into the feasibility of such a complaint was recommended. Questions to be investigated concern the interpretation of 'essential services', 'abuse of dominant position' and 'excessive pricing' as they appear in the Competition Act. In addition, it is important to determine whether goods are physical or immaterial goods, since the latter can be cheaply reproduced, influencing what it is taken to be the 'value' of the good or a

[223]*Report to the Minister: Review of the Financing, Resourcing and Costs of Education in Public Schools*, submitted by Director-General of the Department of Education, T.D. Mseleku, 3 March 2003, cited in A Prabhala & C Caine 'Memorandum on the Free Trade Agreement negotiations between the United States and the Southern African Customs Union', available online at http://ibt.afrihost.com/accessof/welcome.php?mcat=Resources&wsSID=e1a810be5ace8f1a7ae08cb015715265&scat=&link=8&PHPSESSID=e1a810be5ace8f1a7 ae08cb015715265, last accessed 1 September 2008.

[224]B Thumbadoo, 'The state of access to learning materials in Southern Africa', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[225]Prabhala

[226]Prabhala

'reasonable relation' between the price of the good and its value. It has been argued that essential knowledge goods should be deemed to be excessively priced where the majority of those who need access to them cannot afford them.[227]

Finally, the A2LM movement calls for resistance to overly restrictive interpretation of South Africa's obligations under TRIPS.[228] TRIPS is often invoked as imposing minimum requirements on the intellectual property regimes of signatory countries. Often, however, these requirements have been incorrectly interpreted or confused with demands made upon developing countries by developed countries during trade negotiations. It is important to have a clear understanding of the real impact made by TRIPS. However, a detailed discussion is outside of the scope of the present article.

The economics of intellectual property and development

In opposition to the A2LM critique, interests in the local publishing sector have raised concerns that copyright law reform, in particular exemptions from copyright law obligations in favour of education and special needs groups, would negatively affect the viability of an educational publishing industry.[229] Gerard Robinson of the Dramatic, Artistic and Literary Rights Organisation (DALRO) has said that the balance between owners' right and users' permissions is to be achieved through licensing rather than through legislative exemptions. If users were to accept that licensing is the means to achieve access to learning materials, while keeping in place the model of purchasing rather than copying prescribed textbooks, then the publishing industry would be open to negotiation about the costs of such licences.[230]

Yet open licensing models, in which books are provided free to consumers, would also pose

[227]Michelle Childs, 'Competition policy and excessive pricing', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[228]US free trade negotiations with SACU in 2003 tried to impose obligations going beyond the minimum specified by TRIPS, but the negotiations did not succeed.

[229]E Gray & M Seeber, PICC Report on intellectual property rights in the print industries sector (Cape Town: Print Industries Cluster Council, 2004)

[230]G Robinson 'Legal access. The mediating role of the RRO in copyright licensing', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

some threat to the economies of scale that the publishing industry claims is a necessary part of a successful business model. Rather, DALRO is suggesting that the traditional model continue, with access an outcome of negotiations between publishers and users. It is unclear how this would change the present situation.

How valid are publishers' concerns, and what sorts of reforms will actually work in the light of available data and the particular needs of the South African context? Since one concern is the role intellectual property rights play in incentivizing the production of books, research is required on author attitudes towards reputation versus payment. There has been little understanding of the royalties that academic authors receive under the current system, and how these compare as incentives to other rewards academic authors receive, such as academic promotion and other reputational effects. Internationally, some academics have gained from following open licensing models that result in their work being distributed more widely. It is also important to understand what proportion of the material used within educational institutions is typically authored by South Africans, and how often the copyright in learning materials vests in South African individuals and publishers. In other words, further empirical research on the flows of royalties and rewards in the South African context must be undertaken.

Intellectual property rights do not only incentivize individual authors; they also incentivize publishers. The immediate response of the publishing industry has been that increased access will endanger an already vulnerable market, and therefore the existence of an academic publishing industry, as well as the willingness of foreign publishers to do business in South Africa. The economic research indicates that the truth of this will depend on the specific circumstances. Maskus and Penubarti have used a static economic model to show that the effects of a developing country strengthening its intellectual property rights regime on the sales of a foreign company are ambiguous.[231] Fink and Maskus note that '[i]n short, the net effect of stronger IPRs is an empirical question.'[232]

The need for calibration according to the circumstances of the particular domestic market is a

[231]KE Maskus & M Penubarti 'How trade-related are intellectual property rights' (1995)*Journal of International Economics 39*, 227-248.

[232]C Fink & KE Maskus (eds) *Intellectual property and development: lessons from recent economic research* (Washington DC: World Bank & Oxford University Press, 2005), 3.

theme that runs throughout the economic literature.[233] Fink and Maskus also point out that the gains to innovation through increased incentives will depend on local levels of education and practices of research and development, amongst other things.[234] Local levels of development must therefore be taken into account in developing a nuanced and optimal intellectual property rights regime.

Open access publishing models.

One area where A2LM has focused its attention and made real progress is the development of open access or open licensing publishing models. These models co-exist with current intellectual property law, and thus evade some of the arguments made by the publishing industry against copyright law reform. Nevertheless, their success would represent competition to traditional business models.

The Free High School Science Textbooks project is one such project: it aims to produce high school mathematics and science textbooks that cost R15-20 each ($1.50-$2.00) in print and are freely available online.[235] The books are written by a team of volunteers, mostly university students, and are licensed under the GNU Free Documentation Language (GFDL), one of the earliest open licences. The project was originally based at the University of Cape Town, but now receives support from the Shuttleworth Foundation. The first book was produced in 2008 in Afrikaans, one of the indigenous languages of South Africa. Translations into other languages are also planned. In addition, the books are adapted to the South African context. For example, notes at the end of chapters discuss future career paths related to the material taught[236] – a significant context-driven feature, since many young South Africans are not exposed through their families or local communities to the opportunities that exist after

[233]DJ Gervais (ed) *Intellectual property, trade and development* (Oxford: Oxford University Press, 2007).

[234]Fink & Maskus, 5.

[235]R Adams, 'FHSST: Free High School Science Texts', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[236]Ibid.

further education. [237]

Is it possible to adapt the new models of open licensing that have developed online to an environment where the emphasis is on printed materials and books? One successful example of this has been the revamp of the publishing department of the Human Sciences Research Council (HSRC) in 2002. The HSRC is a state-affiliated research unit that has a mandate to disseminate social scientific information, and accordingly its publishing arm makes available all published books and research papers as free downloads. Print books are sold at cost price, entailing a significant reduction in price relative to comparable titles of academic interest. Furthermore, the books are licensed in such a way that non-commercial reproduction is allowed. The strategy has allowed a much larger number of books to be published, and has also garnered HSRC Press an international reputation, drawing in more donor funding.[238] It has even resulted in higher sales of printed copies of the books – a 247% increase on sales previous to the review of its publishing practice.[239] Thus, while the Press distributes printed books to only 11 countries, it has online orders

from 184 countries.[240] Books made available electronically will also not go out of print – a common problem with special interest books that have very small print runs. Rens, Prabhala and Kawooya write that '[t]he open access textbook … costs as much as it does to print and can be available whenever.'[241] This is a simplification on two counts. Firstly, many of the traditional costs associated with producing any book are also involved in producing the open access textbook: the costs associated with research and authorship. What is different is not the cost of production, but the price charged, and this makes a difference to the incentives to authors and publishers. But the difference can be assimilated by a business model which does

[237]See also FHSST case study in this report, pg 203.

[238]E Gray, 'Open access – a way of growing local content?', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[239]Karen Bruns, 'Open access – why the fuss?', *Mail & Guardian Higher Learning*, 14 March 2008, 4.

[240]Garry Rosenberg, 'Broadening the exchange of knowledge', *Mail & Guardian Higher Learning,* 13 June 2008, 7.

[241]Andrew Rens, Achal Prabhala, and Dick Kawooya, "Intellectual property, education and access to knowledge in Southern Africa", report for the TRALAC-ICTSD Project on Intellectual Property Rights, Innovation and Sustainable Development in Eastern and Southern Africa (Trade Law Centre for Southern Africa, 2006), 2.

not rely on rents from intellectual property rights. There is much we know already about how business might operate in the absence of intellectual property rights. Ethnographies of open source software development show that reputation plays a critical role in motivating authorship and signalling quality in a community of expertise.[242] New models of collaboration premised upon incremental authorship with small associated authorship costs show that collaborative work can achieve much without high factor costs for expertise and skilled labour.[243]

It is still critical to understand the degrees of freedom of these kinds of innovation in the South African context, and this might be achieved with empirical research into actual motivations for authorship and opportunities for collaborative work in specific fields of expertise.

The second simplification, well recognised by the A2LM movement, is that open access web resources are not available 'whenever', certainly not in the context of low access to ICTs.[244] Projects such as Free High School Science Texts are enthusiastic that their products can be printed on demand. Yet print on demand technologies may be as constrained as online resources. Many rural schools are hours away from the closest printers or photocopying machines. Again, these kinds of constraints must be factored in when encountering exuberance around the cheapness of open access textbooks.

There are hidden costs in providing open licensed textbooks, and it may be that some time will elapse before models cover these costs in a sustainable way and reliable alternative business models emerge. Therefore, while remaining optimistic about the examples set by FHSST and the HSRC, it is still necessary to consider the call for copyright law reform.

Copyright reform.

Radical and 'abolitionist' critiques of intellectual property abound, but must be set aside here. Current international norms and negotiations do not allow policy makers to stray far from a western intellectual property framework in the short term. On the other hand, while new

[242]ES Raymond *The Cathedral and the Bazaar* (Sebastopol, CA: O'Reilly, 2001).

[243]J Surowiecki *The Wisdom of Crowds* (Doubleday, 2004).

[244]In South Africa one in 20 people have access to the internet. Those who are online experience some of the highest telecommunications costs in the world. Prabhala.

models allowed by open licences have already resulted in innovative projects, these may not be enough in the short term. Therefore the A2LM movement has also focused upon the extent and form of limitations and exceptions provided the existing law, and advocated extending some of these limitations and exceptions. As Graham Dutfield puts it, the question is not about 'rights versus no-rights', but 'what kind of rights should we have?'[245]

Most important to this debate has been the scope of s 12(1) of the Copyright Act.[246] Copyright legislation aims to achieve some balance between protecting the interests of authors and copyright holders to receive remuneration for use of their works, and the interest that the public has in free access to knowledge, especially in order to use previous works in order to create new works in the context of quoting, reviewing, or furthering the development of knowledge by study and research.

Copyright statutes often have fair use or fair dealing provisions which provide for exemptions from uses of copyrighted materials that would otherwise be deemed to be infringing uses. Such clauses thus already provide some free access, and could potentially be altered in order to provide greater access to knowledge in specific contexts, such as education. In South Africa, s 12(1) of the Copyright Act provides a closed list of 'fair dealing' exemptions that allow for the reproduction of copyrighted literary works without the permission of the rights holders.[247] Section 12(1)(a) allows specifically for copying 'for the purposes of research or private study by, or the personal or private use of, the person using the work'. Thus unrestricted photocopying for individual use is allowed, but making multiple copies of a protected work or copying by a third party is not. The Intellectual Property sub-committee of

[245]Graham Dutfield, 'A rights-free world - is it workable, and what is the point?' in Waelde, Charlotte and MacQueen, Hector (eds) *Intellectual property. The Many Faces of the Public Domain.* (Cheltenham: Edward Elgar, 2007), 224; also Anthony S. Taubman '*TRIPS jurisprudence in the balance: between the realist defense of policy space and a shared utilitarian ethic*' in C Lenke, N Hoppe and R Adorno (eds) *Ethics and law of intellectual property. Current problems in politics, science and technology* (Hampshire: Ashgate, 2007), 89-120.

[246]Act 98 of 1978.

[247]Sections 13-15 provide similar lists of exemptions for non-literary works such as sound recordings and photographs.

the Southern African University Vice Chancellors Association (SAUVCA) has argued that not all instances of multiple copying and third party copying should be prohibited, as not all such instances are damaging to the rights holders, specifically those instances of copying that take place for the purposes of instruction, assessment and research within an educational institution and which are not carried out for any commercial gain. In addition, given that South Africa has the critical needs of a developing nation, and has an under-resourced educational environment, this kind of exemption would be fair.[248]

Given the high costs of textbooks and books, as well as the rapid advance of knowledge in some fields and the wish to keep information relevant to the South African experience in other fields, many university course convenors and school teachers might prefer to create their own course material packs for students. This could be done by photocopying materials from a diversity of sources: book excerpts, journal articles, newspapers, diagrams and photographs from online sources. Copyright clearance for the creation of course packs is generally obtainable from the Dramatic and Literary Rights Organisation (DALRO), the reprographic rights organisation representing both South African and foreign rights holders. DALRO doesn't represent every rights holder, so it is possible that a course pack compiler would have to seek clearance from individual rights holders. Of course, search costs and transactions costs can be high, even prohibitive. Copyright clearance fees paid to DALRO are high. Furthermore, DALRO provides blanket licences for higher education institutions, but not for schools – currently, they must apply directly to individual rights holders for clearance.[249] Furthermore, DALRO agreements with higher education institutions typically exceed statutory copyright restrictions. For example, institutions are compelled to post notices in their libraries telling users that they may not photocopy in excess of 10% of any publication. Yet the section 12 exemption clearly does not place any quantitative limit on reproduction for private study and research.

In the light of these restrictions on compiling course materials, SAUVCA argue, the Act should be amended to more clearly lay out the criteria for fair dealing, and to include a specific reference to fair dealing 'for the purpose of education in an educational institution'.

[248]D van der Merwe, 'All's fair in love and copyright', presentation at the Access to Learning Materials in Southern Africa conference, Johannesburg, January 2005.

[249]A Story, C Darch and D Halbert *The Copy/South dossier. Issues in the economics, politics, and ideology of copyright in the global South* (Kent: The Copy/South Research Group, 2006), 113.

This exemption would be limited to copying of 'a reasonable portion of the literary work, to a reasonable number of instances of multiple copying and only for the purposes of distribution to learners registered for a learning module for their exclusive use in that module'.[250]

Another goal of the A2LM movement is reform of copyright legislation to provide exemptions for special needs groups. Which special needs should be catered for? Prabhala has mentioned three groups: the visually impaired, indigenous language learners, and those engaged in distance learning.[251] The most immediate case is that of the visually impaired or print disabled. The incidence of visual impairment is higher in developing countries than in the developed world. Of the 37 million blind people in the world, 33 million live in developing countries.[252] Moreover, the statistics for visual impairment, based on voluntary registration, are typically understated: there are claims that the actual number of visually impaired people is 11 times the registered number.[253] Official statistics place the number of visually impaired people in South Africa at above one million.[254]

Published material can be made available to the visually impaired in a number of different ways, according to need: large print books, Braille, audio books, or in computer assisted formats. The problem needless to say, is that each counts as an adaptation and requires the permission of the copyright holder; in the case of audio recordings, the reading of a literary work counts as a performance of the work, which again requires permission. Publishers seldom find it desirable to release works in such formats: the World Blind Union has estimated that only 5% of published titles become available in accessible formats, and when they do it is typically long after original publication.[255]

There have been copyright reforms in developed countries that allow limited rights to make such copies. For example, the UK has enacted the Copyright (Visually Impaired Persons) Act

[250]Van der Merwe.

[251]Prabhala.

[252]World Health Organisation Bulletin 82(11), November 2004, cited in Story, Darch & Halbert, 127.

[253]Story, Darch & Halbert, 128.

[254]*Population Census '96.*

[255]Presentation of the World Blind Union to the Standing Committee on Copyright and Related Rights, WIPO, 3 November 2003, cited in Story, Darch & Halbert , 129.

2002, which allows an individual copy of a work to be made in an accessible format without the permission of the rights holder. (Similar legislation exists in the US, Canada, Scandinavia, and New Zealand). These reforms are typically narrowly restricted and provide insufficient access:[256] for example, only particular organisations are allowed to benefit from the exemptions.[257] However no such legislation at all exists in any developing country.[258] Furthermore, where users in developed countries have negotiated agreements with rights holders to produce accessible format versions, it is typically a condition of these agreements that the works not be exported to other jurisdictions; thus, for example, accessible format versions produced by the Royal National Institute for the Blind in terms of its agreements with publishers cannot be exported to students outside of the UK.[259] Yet the expense and technology required for making such versions is beyond the resources of most developing countries.[260]

Another special need group consists of those who wish to learn in an indigenous language. Translation of a copyrighted work constitutes adaptation, and so requires the permission of the copyright holder.[261] Yet indigenous language groups are seldom considered as having special needs or justifying statutory exemptions. There is certainly no mention of such a need in current legislation. Yet, it should be clear from the aforegoing discussion of education in South Africa that this is a pressing developmental need that is not well catered for in the current scenario.

Does anything in international law prevent South Africa from formulating exemptions for special needs groups? Treaties such as the Berne Convention and TRIPS outline a 'three-step

[256]Story, Darch & Halbert, 131; K Garnett ‘The Copyright (Visually Impaired Persons) Act 2002’ (2003) *European Intellectual Property Review 25(11)*, 522. more.

[257]Story, Darch & Halbert, 132.

[258]Ibid., 129.

[259]Ibid., 129.

[260]Ibid., 130. Producing an accessible format book typically costs five times as much as the cost of the original.

[261]South Africa is not considered a developing country for the purpose of the 1971 Appendix to the Berne Convention, which does make special arrangements for translations.

test' which provides a general standard for determining whether use of a copyrighted work constitutes fair dealing or not.[262] The three-step test permits exceptions (i) in certain special cases (ii) which do not conflict with the normal exploitation of the work, and (iii) which do not unreasonably prejudice the legitimate interests of the author or rights-holder.

For interpretation and application of the 'three-step test', further data about the South African context is required. This is the most urgent need at this stage in the development of the debate about access to learning materials: empirical research that can help to make the case that extending access to special needs groups is a vital need and need not unreasonably prejudice the interests of rights holders. This requires quantification of the costs to rights holders and the benefits to special needs groups that is. Such an analysis would go far towards showing whether the positive effects of extending access would be proportional to any harm caused.

The next section undertakes a brief constitutional analysis that shows the need for this kind of further empirical work even in the context of potential human rights litigation.

3. A2LM as a constitutional obligation.

Learners have many ideas about how schools could be improved. They hold different opinions on issues. At the heart of their vision for change is a school and classroom that respects them as human beings and recognises their right to learn.[263] Given the potential ambivalence of empirical research as to the economic benefits of particular copyright reforms, it might be thought better to formulate A2LM arguments in terms of social justice. Indeed, it has been urged in other contexts that conflicts between the rights of authors and the rights of the public to information should be resolved in terms of fundamental human rights.[264] Human rights arguments have a unique priority in South African policy debate, on two accounts. Firstly, our hard won constitutional revolution is still fresh enough in the collective memory to bear particular weight, and constitutional interpretation is a relatively

[262]See article 9(2) of the Berne Convention of 1886, article 13 of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) of 1995, article 10 of the WIPO Copyright Treaty, and article 16 of the WIPO Performances and Phonograms Treaty.

[263]*Emerging voices* , 94.

[264]C Geiger 'Author's right, copyright and the public's right to information: a complex relationship (rethinking copyright in the light of fundamental rights)' in F Macmillan (ed) *New directions in copyright law vol. 5* (Cheltenham, UK: Edward Elgar, 2007), 24-44.

new and vigorous activity. Secondly, the Constitution is supreme law, and all law in conflict with it must be rendered invalid by a court.[265] The burden of the present section is to show that human rights arguments may also benefit from analysis of the economic and developmental consequences of intellectual property policy.

A constitutional argument in favour of A2LM seems particularly appropriate given the Constitution's status as a socio-economic charter, rather than a mere bill of political liberties. The South African Constitution has been regarded as one of the most progressive statements of human rights because of its inclusion of not only civil and political (or first-generation) rights, such as the right to life and the right to freedom of expression, but also socio-economic (second-generation) and environmental (third-generation rights). Socio-economic rights typically guarantee minimum levels of provision of housing, health care, food and water, education, and social security. Such rights have been of particular importance to the developing jurisprudence of the Constitutional Court, as many of South Africa's dispossessed have begun to use the legal system in order to try to secure a better life. The inclusion of these rights as justiciable rights was a direct response to the disparities of the new democracy, and an acknowledgement of widespread poverty and urgent developmental needs. The Constitutional Court, in its certification of the Constitution, pointed out that although these rights are not universally accepted, they are justiciable and would not necessarily threaten the principle of separation of powers. Although the enforcement of socio- economic rights has budgetary implications, so does the the enforcement of first generation rights; and at the least, courts can be expected to protect socio-economic right from invasion.[266]

Constitutional scholar Sandra Liebenberg has distinguished between three categories of socio- economic rights, according to the kinds of guarantees which they provide.[267] It is useful to describe this classification in order to understand how the constitutional right to education is likely to be interpreted. The first category, containing what Liebenberg calls the qualified rights, includes the section 26 right to housing and the section 27 right to health

[265]Section 2 of the Constitution.

[266]*Ex parte Chairperson of the Constitutional Assembly: In re Certification of the Constitution of the Republic of South Africa 1996* 1996 (4) SA 744 (CC) at paras 75-78.

[267]S Liebenberg, 'The interpretation of socio-economic rights,' in S Woolman, T Roux and M Bishop (eds) *Constitutional Law of South Africa*, vol. 2, 2nd ed. (Cape Town: Juta, 2008), 33-5.

care, food, water and social security. The right to housing is a good example of the form which the drafters have lent these rights: it gives everyone the right to have access to adequate housing,[268] and obliges the state to 'take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation' of the right.[269] These rights are qualified because they guarantee only access to the socio-economic goals mentioned, and require only that the state do what is reasonable and feasible given its resources. However, their power lies in the positive obligations they place on the state to take steps towards achieving the goal.

The second category consists of basic socio-economic rights. These rights are not qualified in the aforementioned way, and include guarantees of certain minimum standards of socio-economic provision: for example, s 28(1)(c) grants the right of every child to 'basic nutrition, shelter, basic health care services and social services.' The third category consists of negative guarantees against invasion of one's socio-economic standing: for example, the s 28(3) right that '[n]o one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances.'

The right to education straddles these distinctions, affording a basic right to basic education, and a qualified right to further education. In addition there is a right to education in the language of one's choice that is not easily categorized as either a basic or a qualified right. Section 29 states that:

(1) Everyone has the right –

a) to a basic education, including adult basic education; and

b) to further education, which the state, through reasonable measures, must make progressively available and accessible.

(2) Everyone has the right to receive education in the official language or languages of their choice in public educational institutions where that education is reasonably practicable.

There are furthermore several features of the emerging jurisprudence on socio-economic

[268]Section 26(1) of the Constitution.

[269]Section 26(2).

rights that are worth noting. Firstly, the rights in the Bill of Rights[270] are to be seen as interdependent, on the basis that 'human rights should be treated holistically in order to protect human welfare.'[271] Socio-economic rights are 'interconnected', and enable enjoyment of other basic rights; they serve the foundational values of dignity, freedom and equality, and thus should not be treated in isolation.

Secondly, the courts cannot shy away from enforcing positive duties on the state. The Constitutional Court in its First Certification judgment noted that it would 'at the very minimum' enforce socio-economic rights against invasion.[272] Section 7(2), which requires that the state promote and fulfil the rights in the Bill of Rights, thereby places positive duties on the state. Indeed, the courts must take care not to infringe the principle of separation of powers in doing so, something that is particularly hard when imposing positive duties, since they have budgetary implications. In Soobramoney v Minister of Health, KwaZulu-Natal ('Soobramoney'),[273] the first notable case involving the interpretation of socio-economic rights (in this case the s 27 right to health care), the Constitutional Court noted that the obligations imposed by these rights were 'limited by reason of lack of resources.'[274] Yet, though cautiously, the Constitutional Court has gone on to impose positive duties with implications for the fiscus in landmark cases Government of the Republic of South Africa & others v Grootboom & others ('Grootboom')[275] and Minister of Health & others v Treatment Action Campaign & others ('TAC').[276]

Yet even if the Court's jurisprudence strikes a note of caution in this area, it is worth noting that copyright law reform in order to fulfil the section 29 right to education would not have great fiscal implications for the state. In fact, targeted exemptions might alleviate the fiscal burden in areas such as procurement of textbooks for state schools.

[270]Chapter 2 of the Constitution.

[271]Liebenberg, 33-1.

[272]Certification at para 78

[273]1998 (1) SA 765 (CC), 1997 (12) BCLR 1996 (CC).

[274]At para 11.

[275]2001 (1) SA 46 (CC), 2000 (11) BCLR 1169 (CC).

[276]2002 (5) SA 721 (CC), 2002 (10) BCLR 1033 (CC).

The primary instrument of international law protecting socio-economic rights, the International Covenant on Economic, Social and Cultural Rights (1966) (the ICESCR), has not been ratified by South Africa. However, s 39(1)(b) of the Constitution obliges every court to consider international law when interpreting the Bill of Rights, and so it is important to consider the provisions of the ICESCR. Article 15(1) of the ICESCR, the right to take part in cultural life, should be read as a right to participate in the furtherance of human knowledge and share in its benefits, and can thus be understood as protecting access to knowledge.[277] Furthermore, article 27 of the Universal Declaration of Human Rights also provides a right to participate in cultural life, which likewise favours the protection of access to scientific and cultural knowledge.[278]

A key debate about the interpretation of the socio-economic rights is whether they ensure a minimum core, in other words some basic level of goods and services to be provided by the state, or simply right to review existing governmental programmes on the basis of reasonableness. A minimum core jurisprudence would be in keeping with the UNCESCR's interpretation of the ICESCR as obliging state parties to provide minimum levels of essential social services. However, the Grootboom court rejected the notion of a minimum core, on the basis that it would be difficult to establish what the minimum level of provision should be, since it would vary according to factors like income and availability of land in the case of housing.[279] However, the court proceeded to note that 'it may be possible and appropriate to have regard to the content of a minimum core obligation to determine whether the measures taken by the State are reasonable.'[280] In the TAC case, the Constitutional Court again rejected the idea of a minimum core, having regard to the qualifications inherent in the s 27 right to health services.[281] There has been much criticism of this approach,[282] yet it is safest to assume that the idea of a minimum core obligation will play at best an evidential role in future

[277]C Sganga & LB Shaver, 'Access to knowledge and the right to take part in cultural life', submission by the Information Society Project at Yale Law School to the Committee on Economic, Social and Cultural Rights, 41st session, 3-21 November 2008, available at http://www.law.yale.edu/documents/pdf/ISP/article15.pdf (last accessed 15 August 2009).

[278]LB Shaver, 'The right to science and culture' (working paper, 2009), abstract available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354788 (last accessed 15 August 2009).

[279]*Grootboom* at paras 32-33.

[280]Ibid., at para 33.

constitutional adjudication.[283] Instead the crucial requirement for enforcing a socio- economic right will be showing that a governmental programme is unreasonable.

In both Grootboom and TAC the Constitutional Court has given more content to the notion of reasonableness review. Grootboom pointed out that a reasonable programme is one which is comprehensive, coordinated, capable of facilitating the realisation of the right, pays attention to short-, medium- and long-term needs, and makes provision for those with desparate needs.[284] In the TAC case, the court considered and rejected many of the government's justifications for its policy of limited access to anteretrovirals, and found that the policy was unreasonable. However, the approach is criticized for being vaguer than an approach based on minimum core obligations.[285]

What is common between the minimum core approach and the reasonableness review approach adopted by the court is that a fine-grained factual analysis of current policy is required of the court. It has been suggested that the reasonableness review entered into thus far goes beyond mere means- end rationality and requires that the court substitute its judgment of what the rights require for the judgment of the state.[286] While it is still unclear whether reasonableness should be interpreted as allowing a court to enter into an analysis of the proportionality rather than merely the rationality of a policy, it does appear from case such as Grootboom and TAC that the courts would be willing to compare proposed policy

[281] *TAC* at para 35.

[282] Liebenberg 33-27 et seq; T Roux 'Understanding Grootboom – a response to Cass R Sunstein' (2002) *Constitutional Forum 12,* 41-51; David Bilchitz 'Giving socio-economic rights teeth: the minimum core and its importance' (2002) *South African Law Journal 118*, 484-501; David Bilchitz 'Towards a reasonable approach to the minimum core: laying the foundations for future socio-economic rights jurisprudence' (2003) *South African Journal on Human Rights* 19, 1-26.

[283] See Liebenberg 33-32, suggesting that failure to comply with a minimum core obligation may render a governmental programme for provision of the socio-economic benefit *prima facie* unreasonable.

[284] *Grootboom* paras 39-44.

[285] Liebenberg 33-40 – 33-41.

[286] 120 T Roux 'Legitimating transformation: political resource allocation in the Constitutional Court' (2003) *Democratisation* 10(4), 92-111.

approaches with that actually adopted by the state. Indeed, these decisions seem to find that a current policy is unreasonable on the basis of a consideration of what policy might otherwise be adopted. It appears then that socio-economic rights litigation must be supported not only by arguments from social justice but also by evidence that current policy is unreasonable relative to other feasible policy approaches.

Given this emerging jurisprudence, can arguments in favour of access to learning material be based on the s 29 right to education? For a sound constitutional analysis, further questions about application, remedies, and limitations analysis would have to be explored. This is beyond the scope of the present article, which does not aim at giving a guide for future litigation. Instead, the purpose of this section has been to point out that even if arguments for A2LM are to be premised upon human rights, to be sustained they require further empirical research into the particularities of the South African context.

Conclusion.

There is plentiful evidence that the South African education system at all levels is inefficient, unequal, unsuited to economic needs, and lagging behind international standards. To some degree the situation could be alleviated by extending access to learning materials. One obstacle to such access is the current intellectual property rights regime, and the A2LM movement has proposed several remedies, including alternative publishing models based on open licences and copyright law reform.

While the access to knowledge movement has typically preferred arguments from social justice and human rights, arguing for example that access is vital for diversity of content, freedom of expression and the right to participate in cultural life and the progress of knowledge, it is clear from the aforegoing that extending access in a developing country such as South Africa might also play a strong role in economic development. In other words, it is possible to elaborate the economic arguments for increasing access to knowledge in the developing context. The economic research points towards the importance of understanding the local economic environment in crafting an effective intellectual property framework, and this work remains to be done in South Africa. While the economic benefits of increasing access are implied by much of the A2LM advocacy, often advocates' arguments are phrased in terms of the injustices done to individuals who cannot access education because of prohibitive pricing or the kinds of inappropriateness of learning materials mentioned earlier.

It would be helpful to set out in more detail, and upon the basis of further empirical research, the linkages between barriers to education faced by individuals, intellectual property rights, and national economic development.

Furthermore, even if future A2LM advocacy proceeds on the basis of arguments from social justice and human rights, at least one natural avenue to litigation points to a need to understand more clearly the links between intellectual property policy and economic development. Thus litigation (or advocacy) based upon the constitutional right to education would gain immeasurably from alternative policies that have clearly worked out costs and benefits. Again, the economic research points to the need to understand local factors very clearly in making such determinations.

In sum, there are a variety of opportunities for furthering the agenda of A2LM in South Africa, and some progress that has already been made. Further progress might be catalysed by the kind of fine-grained, empirically based research which has been helpful in other areas of socio-economic rights litigation.[287] Once policy-makers see the convergence of rights-based and economic arguments, it will be difficult for them to deny the good sense of extended access.

[287]For example, the work of South African economists in showing the benefits of expanded provision of antiretrovirals played a large role in HIV/AIDS activist campaigns to change government policy before and after the TAC case. See eg J Skordis & N Nattrass, 'Paying to waste lives: the affordability of reducing mother-to-child transmission of HIV in South Africa' (2002) *Journal of Health Economics 21*(3), 405-421.

CHAPTER 4

Two Different Visions of the Knowledge Society: Access to Research - knowledge for development in a transitional society

Eve Gray & Rebecca Kahn

Introduction

Addressing the UNESCO World Conference on Higher Education in April 2009, the Minister of the new South African Department of Higher Education and Training, Blade Nzimande, lamented the persistence of the global knowledge divide:

> "Although progress has been made in Higher Education provision in Africa, it is obvious that over the last few decades some things have not changed. There has been no significant break in relations of knowledge production between the colonial and post-colonial eras. African universities are essentially consumers of knowledge produced in developed countries. In essence what is being defined as 'knowledge society' means two different things to the developed world and the African continent. The former are the producers and the latter are the consumers of knowledge, which seriously undermines the fostering of the multicultural nature of Higher Education, as virtually all partnerships are one-sided.
>
> This is not only negative for the African continent, but it also deprives global higher education of access to the indigenous knowledge of Africa, and it deprives Africans of the opportunity to develop their indigenous knowledge system and strengthen their relationship to western and eastern knowledge systems."[288]

While these comments from the Minster were extensively – and appropriately - quoted in the media, what is even more interesting is the nature of the solutions the Minster posited

[288] ;http://sanord.uwc.ac.za/ http://www.education.gov.za/dynamic/dynamic.aspx?pageid=306&id=8720

for the problem that he identified. What he suggested was the need to grow the participation rate of African countries in higher education in terms of student numbers and the demographics of higher education. What was notably absent was any discussion of the unequal global relations of research publication and hence of access to the research produced in different parts of the world. This is largely a matter of the dominance of global research publication by large corporate scholarly publishers located in the global North, underpinned by proprietary intellectual property models and supported by presumptions of what constitutes the 'universal' and the 'excellent' that are built on Western, neo-colonial values. It is this that, more than anything else, has ensured that what research is produced in the developing world and Africa in particular, remains marginalised. Investigation of these knowledge power relationships is crucial not only for the future of research in South Africa, but more broadly since it yields insights into global knowledge dynamics important for those engaged with access to knowledge issues. These dynamics cannot be made fully apparent through confining critique to the post-TRIPS neo-colonial trend of Intellectual Property law. Instead they require a more profound enquiry into ideas about the nature of knowledge itself, and its social construction, in developing and transitional societies.

Moreover, this chapter will argue that, particularly in the case of South Africa, government policy is, perhaps unwittingly, reinforcing this failure of access through its own adherence to the neo-colonial relations of knowledge production through the way it treats policy for research publication. This raises the question of a not-untypical blindness to the realities of scholarly publication and a failure to recognise the damage that has been done through adherence by developing countries to the dominant scholarly publishing culture that so effectively limits access to their own research.

It is not that South African policy-makers did not recognise, post-apartheid, the opportunities offered for redressing the global relations of knowledge production using the levelling potential offered by the Internet.

> The world is in the throes of a revolution that will change forever the way we live, work, play, organise our societies and ultimately define ourselves ... Although the nature of this information revolution is still being determined ... [t]he ability to

> maximise the use of information is now considered to be the single most important factor in deciding the competitiveness of countries as well as their ability to empower their citizens through enhanced access to information. (South African White Paper on Science and Technology 1996)

Given this awareness, at first sight the expectation would be for a high level of awareness in South Africa of the transforming impact of the Internet on scholarly communications and particularly of the potential for providing wider access to and a higher profile for South African research. It is easy to forget, however, that at the moment that policy implementation began – after the first democratic elections in 1994 – the Internet was in its inception, only at the beginning of its phenomenal growth curve. This timing had an influence on the ways in which the potential for ICT use in a globalised world was understood, and this in turn has impacted on the ways in which South African research policy has addressed the question of how research communications and publication can best advance national interests.

1.1 Policy Development – the knowledge economy and access to knowledge

After nearly 15 years of democratic government, South Africa has developed a comprehensive research policy framework to overturn the inheritance of a fragmented, racially divided and inequitable apartheid HE system. In this process, it has grappled with two conflicting, though often intertwining challenges: on the one hand, that of transforming the country's research mission to focus on national and African concerns and development challenges; on the other, the repositioning of South Africa as a distinct international research presence after the isolationism imposed by the academic boycott. There are therefore two very different discourses at play: the value-laden language of transformation and national upliftment and the commercial rhetoric framing the role of research in a competitive global knowledge economy.

This means that, when it comes to the dissemination and publication of South African research, there are competing paradigms as to how this could contribute to national development and African growth through better access to knowledge and how, on the other hand, it could contribute to the country's status in a competitive system of global rankings of research excellence.

Although there is acknowledgement in South African research policy of a changing digital environment and of the potential power of the internet to enhance the development impact of research, scholarly journals – and particularly journals in the international indexes – are privileged as the most recognised scholarly output while other forms of publication are downgraded or disregarded. This means that a wide range of more development-focused publications, such as policy papers and research reports, are not acknowledged as valid research outputs in the policy framework. Even more damagingly, this system works against the potential for research to inform knowledge production in the broader community, its ability to feed into learning materials, textbooks, training manuals or popularisations.

What happens is that the idea of research dissemination and how research can best contribute to social and development goals in South Africa continually defaults to a 'knowledge economy' paradigm that was dominant when policy was formulated. The discourse is that of a commercially driven global economy underpinned by knowledge production in a proprietary IP regime as the way of achieving impact from research. This is an instrumentalist approach in which the impact of research is described as the result of industry/researcher partnerships and joint ventures, something that still remains influential in South African innovation policy. The transfer of knowledge is perceived as taking place face to face in researcher/industry interaction, or is driven through the registration of patents and the production of copyrights in the form of journal articles in globally competitive publications.

The performance of the higher education sector in this system is measured by mechanical counts of the number of patents or formal publications produced. How this translates into real research impact for socioeconomic development in an African country remains unproblematised. Although there are a number of interventions in South Africa that address the need for better access to knowledge, which are explored in this chapter, the strength of the conventional publishing system is demonstrated by a continual reversion to these narrow metrics.

What is not recognised is that the system that is being promoted is one that is built, not on a conception of the public good, but on commercial exploitation of knowledge.

1.1.1. The Body Count – Access to Health

The problem of the global relations of knowledge that is being raised here is a powerful one. In an African country, given the overwhelming development challenges that the continent faces, the question of access to research is not an arcane question but quite literally one of life and death. A Ugandan case study provides a stark example. In a recent book, Dr Peter Mugyenyi, the internationally renowned Ugandan HIV/AIDS specialist made a devastating case against a global knowledge system that has, in the name of intellectual property protection in a global knowledge economy, put the protection of corporate profits ahead of the accessibility of scientific knowledge for the public good:

> It is just a big lie to suggest that humanity is too dim to find ways of rewarding innovation and discovery other than by holding the very weakest of our society at ransom. It is also untrue that the only way businesses can thrive is by cutthroat pursuit of profits under powerful and insensitive protective laws, irrespective of the misery caused and the trail of blood in their wake. Lessons learns from the AIDS disaster should help the world find a way of incorporating justice and human rights in business. (Mugyenyi, P, 2009)[289]

The truth is also that the contents of Mugyenyi's book would not have been readily available to a world readership had Fountain Publishers not taken the bold step (for a commercial publisher) of placing the book online under an open licence.

South Africa provides an interesting case study of the ways in which the question of access to knowledge plays out in the global context, not just because of its status as a second-economy country and the commercial powerhouse of Africa, but also because of a particular set of conjunctures that framed South Africa's approach to its policy on research and A2K.

1.2 Publishing and Perishing

While the picture Minister Nzimande paints in his speech is of an Africa where knowledge is not being produced, the truth is that it is being produced, only for its

[289] Mugyenyi, Peter: *Genocide by Denial: How profiteering from HIV/AIDS has led to the death of millions*

publication to be exported out of the country. As a result of national policy, South African academics are publishing in journals that their own universities cannot afford to subscribe to because they are published by a centralised, globalised scholarly publishing system. Meanwhile tenure and promotion are based predominantly on publication in journals listed in the international citation indexes and the publication of books and monographs in university presses, with more status being granted to publication in the global North. This inequality empowers the wrong people, leaving knowledge in the hands of a few, rather than the very many, who could benefit directly from it, and distorts research agendas because so little African research is spread around the world.

Meanwhile, locally, a contradictory policy and legislative environment has emerged, as a result of what would appear to be two very different views of how the knowledge economy could work for the country. One is the dominant commercial vision of the 20th century, of innovation as a driver of economic growth, delivered through researcher/business partnerships and high levels of patenting. The other is a more democratic vision of the global knowledge society, in which collaborative participation would be the driving force and access to knowledge an important issue.

As a result, access to the locally produced knowledge that is disseminated through scholarly publishing in South Africa is limited. In the context of the Access to Knowledge movement, this is significant because access to the outputs of national and regional scholarship is the source of appropriateness and relevance in the whole range of human development needs in the country: health, poverty relief, employment growth, crime reduction, urban planning, and effective education, from tertiary level all the way to the primary level. It is hard to imagine how the publication in journal articles in the global North can address these issues.

If learning materials are the pipes through which knowledge is distributed, shared and redeveloped, then the results of research and scholarly publishing is the reservoir that feeds the pipeline. At the moment, the reservoir is being filled with knowledge that is not African, or even South African. It is un-localised and inappropriate. And while some attempts are being made to redress the imbalance in the reservoir, a great deal more remains to be done before the reservoir is able to flood South Africa with meaningful, relevant knowledge.

This paper sets out to examine how and why the international scholarly publishing system disadvantages academics, researchers, and, as a result, educators and learners in the

developing world. It also examines the results of the South African government's contradictory policies on research and the dissemination of research results. In the final section, it examines some of the steps that are being taken in South Africa by universities, open access journals and agency bodies which are beginning to challenge the status quo and, as such, unblock the pipelines so South African knowledge can begin to flow more freely.

Research Publication Policy – the Department of Education

The way in which the publication of research results is handled in South Africa is dominated by a Department of Education policy that rewards peer-reviewed publication in journals appearing in the Thomson Scientific and IBSS indexes, and a somewhat problematic list of locally indexed journals, in part inherited from the apartheid era (Gewers and Mati 2006). What is unusual, compared with other countries, is that the department pays a substantial subsidy to universities whose academic staff publishes in these 'recognised' publications. Although peer-reviewed books and conference proceedings accepted by an evaluation panel are also recognised and rewarded, they have a lesser weighting in terms of financial rewards. What is not recognised in this policy is that this system it subscribes to is one that marginalizes research from the developing world and suffers from racial and gender bias (Guedon, Zeleza, Gevers and Mati).

Most importantly, there is no sign in this policy framework of an acknowledgement of the need for the universities or the state to play any active role in research publication – although this is now being addressed in another sector of government (see below xx). The system driven by this reward programme encourages a 'free rider' approach in which the assumption is that publication will be provided by an outside, commercial, publisher (Esposito). Nor is there any recognition of the ways in which scholarly communications are changing in an increasingly digital research environment globally.

The Commercialisation of Scholarly Publishing

South Africa is therefore following a 'traditional' tenure system of academic advancement common in the English-speaking world, which bases promotion and tenure predominantly on publication in journals listed in the international citation indexes and the publication of books and monographs in university presses, with more status being granted to publication in the global North.

Traditional scholarly publishing therefore retains a powerful role in higher education

worldwide, bolstered by the inherent conservatism of scholars and by the power of the large commercial publishers who control the bulk of the most prestigious journals. However, given the potential for the internet to offer instant world-wide distribution of research content, the global inequalities engendered by the commercialisation of scholarly publishing are increasingly being recognised, and are being challenged by new forms of online publication, in particular the open access model.

Before describing the changes that are taking place in scholarly publishing, should first review conventional scholarly publishing, whose commercial basis is not always recognised by the scholars who rely on it,

The Growth of Citation Indexes and Commercial Journal Publishing

The tradition of scholarly publishing began in the English-speaking world with Oldenberg's publication of the first issue of *Philosophical Transactions of the Royal Society of London* in 1650. However, the journal publishing system that scholars now treat as 'traditional' is a product of the knowledge economy, and became strongly commercialised in the wake of a number of post-World War II developments. Responding to the recognition that there was now commercial value in the expanding terrain of scientific knowledge in the knowledge economy, large-scale commercial publishers progressively replaced the learned societies and other small publishers who had until then dominated journal production (Guédon 2001). These commercial journal publishers have, in the last decade, become consolidated into multinational corporations that dominate the production of research publication and stand accused of excessive price increases and anti-competitive practices (for example journal 'bundling' and restrictive IP provisions).

Although this system appears to be regarded by many academics as 'traditional' and immutable, and is often treated as such by tertiary administrators, the commercialisation of research output arose only in the 1970s and 1980s – in the wake of the growth of the economic importance of scientific knowledge and the (not unconnected) massification of higher education in the 1960s and 1970s. Central in its establishment was the application of 'Bradford's Law', which was developed in 1934 for librarians struggling with budgets during the Great Depression as a tool for estimating the diminishing returns of extending a search for references in science journals. This in turn led to Garfield's concept of the 'core science' philosophy that was adopted in what became the hugely influential ISI Science Citation Indexes in the 1960s (now the Thomson Scientific indexes).

In response to this development, the 'core' journals were progressively acquired by commercial publishers who now own the majority of journals on the list of core journals, with Elsevier alone controlling around 20% of them (Guédon 2001). Coupled with the consolidation of English as the lingua franca of scholarly communication in the post-World War II period, the acceptance of the core journal system has, as Guédon argues, created a situation in which 'a private company … Thomson Scientific – unilaterally, and largely unaccountably, decides how many journal titles will be included in its basic list and everybody else abides by its decision' (Guédon 2007: 7).

Accompanying the rapidly increasing consolidation of publishing, with major journals in the hands of fewer and fewer publishers, have come steeply rising prices. As Houghton reports: '[b]etween 1986 and 1998, the number of journal subscriptions in Australian university libraries declined by 37%, but expenditure on them increased by 63% and the unit cost of journals increased by a staggering 474%' (Houghton 2001: 168).

The Impact on Developing World Scholarship

The effect of this regulated system of scholarly evaluation is to push developing countries – defined in this system as 'peripheral' and 'local' – even further to the margins in an already unequal global knowledge system. When the ISI deliberated the presence of publications from 'Third World' countries in the index in 1982, the decision was to evaluate only their 'contribution to world science', rather than (also) including work on matters of 'merely' national or regional significance (Guédon 2007). This has resulted in judgements as to what constitutes world-class scholarship being determined predominantly by publication in a limited repertoire of journals published in the global North.

In these circumstances, African publications – at best perceived as marginal – have practically no chance of being taken up by international institutional subscribers, in either print or electronic format. African scholars – and scholars from other parts of the developing world, equally have limited chances of having their articles published in the indexed journals.

As Guédon (2001; 2007) illustrates, the system functions to create a kind of 'club', and to generate brands that reinforce both prestige and profits. And, as clubs tend to do, the system excludes, through its selection processes and value criteria. Paul Zeleza (1997) has demonstrated, to devastating effect, how the system is biased against women, racial minorities and scholars from outside the metropolitan centres, and is built around western

realities, paradigms and values. It distorts research agendas in developing countries, drawing researchers to projects that will attract publication in the North rather than those of national concern (Benkler 2006). A dispassionate evaluation would hardly identify this as the knowledge dissemination mechanism most suited to leveraging research information for maximal impact on social and economic goals on a continent facing massive development challenges.

Moreover, the impact of high and continually rising journal prices is felt very acutely in Africa, where the effects of high prices are even more devastating, given weak currencies and a general lack of resources (Willinsky 2006; Gevers and Mati 2006).

It is interesting to note, however, that in May 2008 Thomson Scientific released a press statement announcing the addition of 700 'regional' journals to their online database 'Web of Science', after two years of evaluating such titles. According to the Thomson Reuters press release[290], '[t]he newly identified collection contains journals that typically target a regional rather than international audience by approaching subjects from a local perspective or focusing on particular topics of regional interest.' These include nineteen journals from South Africa, one from Nigeria and one from Kenya.[291] While this move is to be welcomed, the language of the announcement still reveals a vision that reflects the view from the global North: the project is designed to provide a regional perspective for the evaluation of research trends and 'builds a bridge between significant regional studies and the global research community'[292].

One could question whether this move by Thomson Reuters is a response to the rising tide of criticism of the system, the growth of open access publishing, and increasing discussion by the developing world (which after all makes up around 80% of the global population) about creating alternative scholarly indexes. In Latin America, the SciELO consortium is developing scientometric tools for regional scholarship, South Africa is partnering with SciELO in a shared open access journal platform, and China is developing its own citation index (Guédon 2007). There has also been a proposal for an African citation index, brokered through Codesria in Senegal (Nwagwu 2006), or, alternatively, through the African Academies of Science (Gevers and Mati 2006). Google Scholar is also emerging as a

[290] http://scientific.thomsonreuters.com/press/2008/8455931/

[291] http://isiwebofknowledge.com/currentuser_wokhome/wos_jnl_expansion/ma/

[292] http://isiwebofknowledge.com/currentuser_wokhome/wos_jnl_expansion/

potential equaliser, offering a source of citation counts that is independent of the indexes.

Worth noting, too, are unintended consequences in South Africa, where an international journal publishing company has been aggressively buying up journal titles to add to its list, quite explicitly in response to the potential of an expanded ISI regional listing. What this will mean in terms of price and availability in the South African market remains to be seen, but this move is at the very least paradoxical in its timing – just as national government is supporting the launch of the ASSAf programme for the development of high profile open access journals in the country.

The theme of paradox is not unusual in any study of the framework of South African research policy, for as much as the international scholarly publishing system puts South African researchers at a disadvantage, so do many of the government's policies and legislation. This second half of the paper turns to examine the research and scholarly publishing milieu in South Africa, and the points at which these contradictions are affecting the dissemination of knowledge in this country.

1.1.2. Development-focused research

An unintended consequence of the South African research publication policy has been the marginalising of the dissemination of development-focused research in the country. South Africa is, however, rich in research programmes that address development needs and which publish – however informally – a rich range of publications.

Research institutes such as the School of Government and the Institute for Poverty, Land and Agrarian Studies at the University (PLAAS) of the Western Cape, the Wits Institute for Social and Economic Research (WISER) at Wits University, the South African Labour and Development Research Unit (SALDRU) and the Child Health Unit at the University of Cape Town (UCT), to name but a very few, produce a range of policy papers and research reports targeted at other academics, policy-makers and government. UCT, for example, has 58 quality reviewed research groupings, a number of them globally recognised as leading research units (such as the Institute for Infectious Diseases and Molecular Medicine (IIDMM), which has participated in the development of an HIV/AIDS vaccine being tested in human clinical trials in 2009).

What is interesting about this kind of Mode 2 research (Gibbons et al 1994) in South Africa is that it could be argued that it epitomises real global excellence in a second economy country that is able to combine the benefits of the highest level basic research with the application of that research to the resolution of major national and regional development issues. This is 21st-century research, collaborative and inter-disciplinary, using the benefits of digital communications for collaboration and data sharing across the globe. It is what SALDRU at UCT describes as research with 'hard heads but soft hearts', drawing on a history of opposition to apartheid, in which committed academics dedicated their research skills to challenging the paradigms of inequality.

These research groupings, across disciplines, institutions and countries engage in a variety of communicative efforts, using blogs, wikis and the exchange of research papers. Development-focused research units translate research findings into training materials and manuals. The researchers concerned tend to provide access to digital versions of their publications on university or NGO websites offering open access to these documents, albeit with confusing copyright notices. The explicit aim of these, mostly donor-funded, publications, is to provide access to the research findings contained in the publications, with as few restrictions as possible.

However, researchers in these units complain that they do not get recognition for the publications that they do produce, but are pressurised to produce journal articles. Moreover, given the lack of support for development-focused research, the publications that are produced are often hard to find, buried in scattered departmental websites.

In addressing the place of this kind of research in the university, South African universities could fall into line with the practice of leading international universities, which are acknowledging the enhanced possibilities for taking control of the effective and open dissemination of their own publications in a digital world and the reputational advantages that this can bring (Brown et al. 2007). The Executive Director, Strategic Publishing and Broadcast Initiatives in the office of the President of the University of California (UC), for example, represented UC's position as follows is a recent forum:

> Publishing and communication enhances knowledge, not just scholar to scholar but scholar to student as well as to the public. In the digital realm, there is no reason to plan to enhance scholar-to-scholar communication without considering how to

> improve the knowledge, the creation and scientific output of the university to the public. (Candee at SPARC 2008)

The irony is that a national government with a deep concern with the need for redress and transformation in the universities and in society has itself developed publication policies that not only limit access to the research that is being funded in the country, but are also, unwittingly, perhaps, contributing to the maintenance of a culture that entrenches the very imbalances and inequities that national policy seeks to address.

In the event, the way these issues have played out has tended to focus attention to transformation on the demographics of participation in higher education, rather than on the empowering potential of access to knowledge and particularly African knowledge. What constitutes and African university has been defined more by the racial profile of the student body and staff than by the production of knowledge and access to that knowledge by the broader community.

Access to research – the Department of Science and Technology

A complication in South African research policy is a division of roles between two national departments, of education and science and technology, with a lack of clarity in the division of roles. The major focus of the Department of Science and Technology has been the articulation of innovation policy, which has been largely patent-driven, but it has also supported a major intervention for an open access journal publishing system for South African journals, through the Academy of Science of South Africa (ASSAf) and is promoting access to publicly funded data.

In an international climate in which the effectiveness of patenting is coming into question, particularly in developing countries, and open innovation models are proving effective in public health, genomics and climate change, the value of linking open access research publication does not appear to have been recognised as an adjunct to innovation efforts and a way of making more broadly available research results capable of encouraging innovation.

One outcome of the knowledge economy innovation thinking in the DST has been the formulation of Bayh-Dole-style legislation, passed in late 2008 as the Intellectual Property Rights from Publicly Funded Research and Development Act.

The first draft of this piece of legislation was extremely stringent and restrictive, limiting the

right to publish any research results until the patent potential of the research had been established. It also provided disciplinary procedures against academics (and students) who failed to patent innovations that were in any way patentable. After submissions from the universities and other interested parties, a revised draft was considerably toned down but still depends upon a default assumption that the way to gain economic benefit from research is through patenting and IP protection. This appears to mean that any academic or university deciding to use open access or collaborative approaches to derive benefit from research might be required to justify that decision to the university concerned or to government or forgo that opportunity if there is any potential for a patent registration.

The Act requires all publicly funded institutions (which includes all universities) to have an Intellectual Property Management Office (IPMO) and provides for the creation of a National Intellectual Property Management Office (NIPMO). It provides for the IP in all patentable inventions to reside in the university. If a university does not want to patent a particular invention, then the right passes to the NIPMO. Only if the national office does not want to patent an invention do the rights pass back to the researcher concerned.

This legislation – and indeed the DST's Innovation Strategy – is built on a widely held belief that the Bayh-Dole Act has made US universities and their researchers rich and helped fuel the growth of the USA. However, this view is challenged by evidence that the Bayh-Dole Act has resulted in financial benefits for very few universities and the registration of a large number of upstream patents has resulted in patent thickets that have impeded innovation rather than helping it (Kapczynski *et al*. 2005; Toomey 2007). As So *et al.* point out, a number of developing countries – from South Africa to China to Brazil and Malaysia – have passed similar legislation without rigorous review of the effectiveness of this 30-year-old legislation in the US.

At best the case for Bayh-Dole in the United States is ambivalent, with research suggesting that any positive impact it might have had been due to a range of factors not present in countries to which it has been exported.

This legislation might well also have a negative impact on research publication. The Act requires that the Intellectual Property in research funded by the state or state research bodies is owned by the university where the researcher is employed. Researchers have to disclose any potential invention before publishing in any way – through presentations, blogs,

websites, or journal articles, or even the submission of a thesis to examiners. Given the vagueness of South African legislation on what constitutes an 'invention' this could have a seriously chilling effect on publication if researchers are nervous of transgressing these provisions.

Moreover, this Act cuts across the thinking of a number of major international organisations that argue that access to and the sharing of research information can often be of greater benefit than commercialisation. It is interesting to note, for example, that the NIH and the Wellcome Trust are both major funders of health research in South Africa and both require open access deposit of the research publications that they fund. The Bill and Melinda Gates Foundation asks for AIDS vaccine research that it funds to be made openly available rather than incurring the delays involved in patenting.

The restrictive approach of this legislation is in contrast to interventions by the DST in the development of open access approaches to research dissemination, both with a strong focus on the use of ICTs for effective research communications. The DST commissioned research from ASSAF on a strategy for scholarly publication in South Africa and is an active participant in and sponsor of a programme for access to data from publicly funded research.

The Academy of Science Scholarly Publishing Initiative

The 2006 Report on a Strategic Approach to Research Publishing in South Africa, commissioned by the Department of Science and Technology and produced by the Academy of Science of South Africa (ASSAf) (Gevers & Mati 2006), was an indication that there is a commitment among South African policy-makers to engage with the question of research dissemination, in spite of the overall conservatism of South Africa's approach to scholarly publication. The report provides a detailed analysis of the state of scholarly publishing in South Africa, at least as far as 'accredited publications' are concerned. The focus is on journals – reflecting the preoccupations of the broader research policy environment. The scope of the investigation was expanded in 2008, however, with the commissioning of a report for the DoE on the criteria for the accreditation of scholarly books and chapters in books, due for delivery in the first half of 2009.[293]

The ASSAf report called for the DST to assume responsibility for driving an initiative for

[293]Publication of this report is expected in November 2009.

national and international cooperation in developing a 'non-commercial, expanded, diversified and more inclusive international listing and indexing system for research journals, including those published in developing countries' (Gevers & Mati 2006: 119). This is being implemented through the creation of a national platform for open access journals in partnership with the Scientific Electronic Library Online (SciELO) in Brazil. This platform will host those journals that have been screened by peer groups of journal editors and have been accepted as publications of sufficient quality to form part of a national stable of journals.

Starting with the South African Journal of Science SciELO South Africa will manage the hosting of these journals on a national open access platform that will provide a comprehensive tagging system to enable the tracking of national and regional impact factors. This intervention will be funded by the DST and the funding will include support for the publication of the journals concerned.

This intervention acknowledges the need for developing countries to develop journals in areas of national and regional importance. In South Africa, the ASSAf proposals include a plan to create a federated system of repositories, with assistance for the creation of a central repository for institutions that cannot afford their own repository. This, however, takes second place to the establishment of a powerful stable of open access journals to create a profile for South African research.

Access to Data from Publicly Funded Research

In September 2007, the DST convened a high-level two-day workshop on access to research data. South Africa has observer status at the Organisation for Economic Co-operation and Development (OECD) and has been invited to participate with enhanced status as a possible prelude to full membership – something that would be a major boost to the country if it were to come about.[294] The workshop was designed to address South Africa's response in relation to the *OECD Declaration, Principles and Guidelines on Access to Research Data from Publicly Funded Research*.

The stated aim of this workshop was to establish what it would take to create a really effective data-sharing system in South Africa. In such a system, the default option should be that restrictions on open access should be the exception rather than the rule, and invoked only

[294]See the opening speech of the Minister of Science and Technology at the 2008 Digital Curation Conference http://stardata.nrf.ac.za/nadicc/programme.html.

with good reason. This, it was argued, is particularly important when data have been developed from publicly funded research. Locking up data in proprietary systems increases the fragmentation and the cost of access to it; open access makes data available across disciplines and countries, allows for automated knowledge discovery, improves the potential for verification and accuracy, and facilitates North-South and South-South transfer.

The Minister of Science and Technology, Dr Mosibudu Mangena, emphasised in his opening speech at the 2008 Digital Curation Conference that there are important reasons for increasing access to and coordinating research information. These included, he said:

e) Reuse of data for new research, including collection-based research to generate new science.
f) Retention of unique observational data, which is impossible to recreate.
g) Retention of expensively generated data, which is cheaper to maintain than to re-generate.
h) To Enhance existing data available for research projects.
i) For compliance with legal requirements.
j) To validate published research results.
k) For use in teaching.

The minister identified a number of data sharing initiatives already under way in South Africa: for example, the Council for Scientific and Industrial Research's Satellite Applications Centre, the South African Environmental Observation Network, the SA Data Centre for Oceanography, Statistics South Africa, and the Chief Directorate: Surveys and Mapping of the Department of Land Affairs, as well as in bioinformatics.[295] He argued for integrated management of data and research information across nations, institutions and disciplines, for the sake of greater impact and efficiency from research investment.

1.2 Open Access Book and Monograph Publishing

The HSRC Press, the publishing arm of the Human Sciences Council, is an interesting case study. Unlike the local university presses, the HSRC Press has the financial support of its

[295] http://stardata.nrf.ac.za/nadicc/programme.html

institution and the recognition that its publishing activities are an essential part of the HSRC's research strategy. The HSRC publishes as a dual-stream publisher, putting full text online with a Creative Commons open access licence, and offering high quality books for sale. This model has been very successful: the availability of online open access versions of the publications has provided a substantial boost to print sales. Online availability has also ensured a wide geographical reach, with HSRC Press books being downloaded in almost every country in the world. Market investigation has showed that the open access policies of the HSRC Press has substantially increased the impact of its research, making it the first port of call for policy-makers and academics seeking information on the social sciences in South Africa. The support of its institution - as well as its strategic success in supporting the HSRC mission - has enabled it to be a prolific publisher, producing as many as 70 books a year.

The HSRC has transformed itself into a world-standard model of how to go about publishing scholarly work using open access models and had led to other international publishing houses following suit. Bloomsbury Academic, the scholarly branch of the Bloomsbury publishing group announced in 2009 that they have adopted a similar model for their imprint going forward.

Open Access journals

There are thirteen South African journals listed in the Directory of Open Access Journals (DOAJ). A number of these are published by Open Journal Publishing, a newly-established open access journal publisher.

Currently Open Journal Publishing is South Africa's only open access journals publisher. It currently has a list of 14 academic journals in its stable, and operates on a mixture of sustainability models, including author fees, sponsorship, and advertising.

There are also a handful of open access journals operating independently, some of which, like the UCT African Gender Institute's *Feminist Africa*, are published from within university departments. The African Gender Institute also runs a continent-wide online gender network, aimed at growing gender-focused scholarship and teaching and learning on the continent.

There does not appear to be a coherent policy in South African universities for the payment of author fees for open access journals, although there does appear to be an increasing

awareness amongst academics and administrators of the possible advantages that open access journals offer in terms of reach and citation impact.[296]

Research Repositories

Directly linked to the issue of open access journal publication is the issue of establishing research repositories. Worldwide, there are new trends of collaboration, dissemination and re-use of research results that are aided by the internet and the development of other associated technologies. Van Deventer and Pienaar (2008) note that these innovations give developing countries an opportunity to make their knowledge output more widely known and accessible, as institutional and other repositories are proving to be an increasingly powerful means of exposing local content to international audiences.

In South Africa, the establishment of institutional research repositories has been encouraged by the efforts of Electronic Information for Libraries (EiFL) and by support from the Carnegie Foundation in its capacity-building initiative for South African libraries. Academics are reporting substantially increased exposure for their research articles and theses placed in institutional repositories. There is, however, a lack of coherent policy at national and institutional level for the creation of repositories. Most are established in university libraries, providing a rational institutional location for the repositories, but also generating problems of ownership and buy-on from academics in the absence of institutional mandates.

OpenDoar lists ten institutional and departmental research repositories in South Africa. These include research repositories at the universities of Rhodes, Pretoria, Durban University of Technology, and Stellenbosch and the CSIR; theses and dissertation repositories at the University of Johannesburg the University of the Western Cape, the University of Pretoria and Durban University of Technology, a specialist repository of African Higher Education research, AHERO,, at the University of the Western Cape, as well as a departmental repository at the Department of Computer Science at the University of Cape Town.

The University of Pretoria has, in 2009, become the first university in South Africa to adopt a mandate for open access deposit of publications by all academics. The senate of the University of Pretoria has unanimously approved an open access mandate for the university,

[296]Personal interviews at the University of Cape Town, 2007-8.

which requires all academics to deposit digital copies of their publications in an open access archive.

These efforts however remain fragmented in the absence of a coherent national policy framework for a research communications and dissemination for South Africa.

Conclusion

While the recent developments in the Open Access movement both globally and within South Africa is heartening, there is some way to go before South African researchers and, down the line, teachers and learners, are able to access the results of the vital research that is being done in South Africa. The inequities of the global scholarly publishing industry will continue to leave South Africa deprived of knowledge until new models are established that promote a back and forth sharing of material, rather than a one-way flow of information out of the country.

Government, too, needs to crystallise and clarify its position on open access if the types of innovation and development that it envisions, and the shift from the knowledge economy to the knowledge society is to take place. It is deeply ironic that as a result of developing policies that adhere to commercial models and principles, in an effort to stimulate innovation and growth, the South African government is in fact, working against its stated aims to develop access to and exchange of knowledge.

The structure of knowledge production in universities in South Africa, legitimated by discourses of excellence, standards, profits and technology transfer serves the interests of multinational corporations situated in the global North. The internalisation of this discourse in South African higher education policy amounts to policy capture.

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Part 2

Case Studies - Imagining a Response

Case Study: Describing the African Commons: a Resource Development and Capacity-building Project

Kerryn McKay

Description

An early, ground-breaking project within the access to knowledge movement in African was the South African based, *Commons-Sense: Copyright Alternatives, Education and Innovation in Africa.* The project, which ran from 2005 to 2006, was sponsored by the IDRC (International Development Research Centre) and hosted at The LINK Centre within the Graduate School of Public and Development Management at the University of the Witwatersrand.

The project had three core objectives. The first was to create a repository to record the concepts and issues surrounding alternative 'intellectual property' rights in Africa, by highlighting African projects that were using open licences or other methods of opening access to materials. The second objective was to build awareness of the 'open' movement by holding a conference for pioneers of the open, digital landscape, where they could share their stories and connect to one another. The third and final objective was to develop a set of resources that would assist organisations with understanding open access, and would also enable them to develop flexible copyright policies for their own organisations.

The project was conceptualised by Heather Ford who was instrumental in 'porting' Creative Commons licences to the South African jurisdiction, and was, at the time, the project lead for Creative Commons, South Africa. It represents the first attempt to use open licences other than for software in providing access to knowledge in Africa.

The relevance of Commons-sense to A2K

Within developing countries, activists, academics and educationalists in favour of global 'intellectual property' reform have argued that applying traditional copyright laws (a Western concept based largely on a commercial model of information access) to educational content and materials would result in many disadvantaged communities being unable to access this information. So called 'all rights reserved' publishing models rely on the purchasing of works priced under the monopoly power of copyright. In Africa, including the relatively wealthy South Africa, the vast majority are unable to afford works priced according to the business models of knowledge intermediaries based in the global North. Continued use of this model, and its legal incarnation in copyright law would widen 'the digital divide' and inhibit the potential of ICTs for development. In South Africa in particular, this impacts directly on one of the country's constitutional rights; namely the right to education.

At the turn of the century, a global shift had seen many custodians and creators of cultural, educational and scientific knowledge propose alternatives to the traditional copyright model. 2005 was a pivotal moment in the A2K movement in Southern Africa, when the Creative Commons South Africa licences were launched. This was the first time that the Creative Commons licences had been 'ported' into any African legal system, and this meant that the possibility of creating, using and sharing resources in both a flexible and legal manner became distinctly achievable. The Commons-sense project leveraged this opportunity by developing tools for African organisations and individuals that would make copyright work in the service of economic development, public heritage and a shared history for all.

Many projects in Africa were (and are) concerned with how to make ICT delivery more accessible to communities, focusing on connectivity. Commons-sense, on the other hand, strove to explore access to content. The project realised that while ICTs are the conduits of knowledge, without open knowledge, access is still, arguably, not achieved. Thus Commons-sense investigated open tools such as Creative Commons, open access journals, digital libraries, online learning environments, open content, and translation projects. It sought the solutions that balance the needs of creators and publishers of educational materials against the needs of users.

Stakeholders

The most obvious beneficiaries of the Commons-sense project were stakeholders within the educational arena, not least because of the moral imperative in opening up educational materials. A number of local educational content repositories and content creators had already shown interest in the Creative Commons licences, and further momentum was gained when prominent early adopters like Thuthong.co.za (the national Department of Education's online portal) and the Shuttleworth Foundation expressed interest in the project. The Shuttleworth Foundation subsequently became involved in a range of projects which involved Creative Commons licences; including the Copyright and Copyleft curriculum project and Siyavula; an open educational resources initiative.

The impact of interest from these significant partners allowed Commons-sense to target resources towards African educational and academic institutions, local and African non-profits and civil society whose objectives were to provide ICTs, content and information to African communities.

Overview

One of the components of Commons-sense was the creation of a conceptual 'map' of the information commons as it related to Africa. The map—called The African Information Commons Encyclopaedia— discussed issues and concepts and identified organisations and individuals that were creating, publishing and distributing 'open content' resources in Africa and around the world. It was available through an online wiki so that users and practitioners at grassroots could adapt it to reflect their specific projects and issues. Later, the wiki was converted into a hard-copy resource entitled *Towards an African Digital Commons* and released in both English and French under a Creative Commons Attribution-ShareAlike 2.0 South African licence.

The second component was the coordination and hosting of a pan-African conference held in

May 2005. It brought together individuals and project personnel from various disciplines committed to a strong African role in regenerating the public domain. The conference signalled the official launch of Creative Commons South Africa (ccSA) by Creative Commons chairperson Lawrence Lessig and the South African Creative Commons team. The conference addressed eight themes: global momentum toward the commons; African universities and digital resources; electronic learning and curriculum-sharing; new publishing for the commons; policy, regulation and trade for the commons; blogging the commons; open content for the developing world; and local content and language. Perhaps most significantly the conference brought together pioneers in open access and open licences together with FOSS activists and so spurred future collaborations.

The third component was the production of materials. Commons-sense produced multimedia training materials which included case studies of African business models that might rely on open access, modules on developing a copyright policy and the use of Creative Commons in the developing world. Resources were published and disseminated under Creative Commons licences, such as the handbook *Towards an African Digital Commons*, and the *Open Business Management Manual: The Enterprise Commons*. These publications were supported by a digital presence on the commons-sense.org website, the openbusiness.cc website and at the researchictafrica.net website.

Setting an African agenda for A2K

The conference was critical for setting an African access to knowledge agenda by non-government actors. At the conference, a number of projects and commitments to the open access movement were initiated. Local media reported on the event and a team of Rhodes University New Media Lab students prepared podcasts and blogs. Dwayne Bailey from the translate.org software project announced a drive to populate open content resources such as Wikipedia with local African knowledge. South Africa's Council for Scientific and Industrial Research (CSIR) announced a new project entitled Free Knowledge Communities, and the University of Cape Town Law School offered to provide legal support for local Creative Commons licences and other alternative intellectual property initiatives. This commitment holds true four years after the launch of the Commons-sense project, with the Creative

Commons licences now being hosted at the Intellectual Property Law Research Unit at the Department of Private Law at the University of Cape Town Law School.

However donor attention, and activist energy turned towards many of the individual projects which emerged as a result of the Commons Sense project, so that without a commitment to long term institution and network building the collaborative network formed by the project has remained informal and has not been developed.

Freedom to Innovate in South Africa: The Struggle Against Software Patents

Bob Jolliffe

Description

Civil society building around software patent activism

A2K issues raised/relevance

Broad patent claims over software have a chilling effect on innovation in South Africa. While South African legislation formally prohibits patents over computer programmes, the patent process itself is subject to manipulation by some multinational software vendors. Examination of the practice serves to give insight into the ways in which access to knowledge, and especially the ability to create knowledge in the developing world, are foreclosed by expansionist intellectual property claims. Such claims are not however in this instance primarily advanced through multi-lateral and bi-lateral agreements but through exploitation of systematic features of a domestic intellectual property system.

FTISA raises the issue of multinational software companies abusing the laxity of the South African patent regime. The South African Companies and Intellectual Property Registration Office (CIPRO) grants patents on the basis of meeting formal requirements only - i.e. there is no substantive examination for validity. One consequence of this is that exceptions to patentable subject matter (such as computer programs) in the Patent Act are effectively ignored in the awarding of patents. This creates an environment of great legal uncertainty for indigenous software developers and consumers. FTISA is a campaigning organisation which is representative of a broad range of social interests. It seeks to highlight the current situation, challenge its more blatant abuses and promote a positive agenda for change in the administrative and legislative framework of patents in South Africa.

Stakeholders

Freedom to Innovate South Africa, (FTISA), a civil society organisation advocating freedom to innovate in South Africa. CIPRO is the Companies and Intellectual Property Office, the government agency charged with registration of patents in terms of the Patents Act 1978. Microsoft Corporation, a multinational software vendor which has made South African

patents claims over software, independent software developers in South Africa.

Overview

FTISA is an advocacy organisation incorporated as a section 21 (not for gain) company in the Republic of South Africa. FTISA primarily addresses the concerns of all South Africans who would have the audacity to *create* innovative inventions without the fear and threat of unfair legal persecution. In the sense that all software users are potential and actual creators, these stakeholders are many. Hence the opening preamble of FTISA's memorandum of association states:

> *"Freedom to Innovate South Africa (FTISA) is a non-profit organisation with a mission to promote and assist in the development of patent policy, legislation and practice that will benefit the South African National interest, the economy and all of South Africa's citizens."*

The initial focus of FTISA on *software* patents addresses the rights of current and potential software developers in South Africa, though the founding mission statement acknowledges in addition that reform of the patent system in South Africa would impact on more than computer software. FTISA understand that the patent system relating to software has an impact upon, and is impacted by, such issues as the openness of software standards and the broader structures and processes of global governance of information and related technologies. In this regard the stakeholder community includes, or overlaps with, all those within government and without, who are involved in the promotion of open standards and open institutions of ICT governance. There has also been ongoing debate and openness to the possibility of a regional role for FTISA within Southern Africa, other than simply South Africa.

The origins of FTISA goes back to June 2006 and a dispute over a patent granted by the South African patent office to Microsoft Corporation, Redmond. The patent is entitled "Word-processing document stored in a single XML file" and it describes much of the word-processing feature set of what later became known as OOXML. In an initiative started initially by Bob Jolliffe, then a Computer Science lecturer at the University of South Africa,

and the Linux Professionals Association (LPA) with the support of Meraka Institute Open Source Centre, an initial request was made to Microsoft's local attorneys, asking that their client voluntarily surrender the patent. Microsoft Corporation, Redmond, rejected this demand, and so Freedom to Innovate South Africa (FTISA) was formed as a not-for-profit voluntary association of civil society which would take the dispute further. In preparation for the potential risks associated with legal action the individual liability of its membership was limited.

Motivations and expected outcomes

A primary objective of FTISA then and now is to create and defend a legislative environment in South Africa which is conducive to the development of an indigenous software sector, one in which software innovation and production is allowed to flourish and the benefits of FOSS (Free and Open Source Software) to the developing economy, which relies heavily on information technology, are nurtured and protected. Such an environment can only exist with a complete, comprehensive, legally robust and affordable enforcement of the existing exclusion of computer software from patentable subject matter in South Africa. By acting effectively, imaginatively and constructively within the national context FTISA also contributes to the efforts of those with similar objectives internationally.

Outcomes/Results

Since its formation, FTISA has:

- organised a successful workshop in February 2007 which brought local and international experts and stakeholders together to discuss the problem of software patents in South Africa;
- presented the FTISA position at various high profile events, including the Digital Freedom Expo in Cape Town and the World IT Forum in Ethiopia;
- contributed to discussions in the South African media by presenting an alternative viewpoint and cultivating the goodwill and knowledge of journalists and their readers;
- organised a follow-up workshop in mid 2007 to further clarify a litigation strategy;
- secured an opinion on the validity of software patents from South Africa's leading IP attorney;
- submitted written input to the South African Department of Science and Technology

on the Draft Intellectual Property Rights from Publicly Financed Research Bill;

- engaged with senior local and international corporate Microsoft personnel over their patenting strategy in South Africa;
- played a decisive role in shaping South Africa's position on the OOXML standardisation process within ISO[297];
- FTISA has also participated by bringing an authentic South African activist perspective to international processes such as the Internet Governance Forum Dynamic Coalition on Open Standards and the ICANN stakeholder group charter.

Conclusion

FTISA has emerged as an consistent voice within South Africa on a complex multi-disciplinary area which is largely neglected by civil society, poorly served by the public sector and increasingly exploited by the self-serving interest of multi-national corporations and local opportunists. The very existence of FTISA serves to broaden the debate on access to knowledge to incorporate the ways in innovation is stifled by the behaviour of multinational corporations.

[297] Discussed at greater length in the OOXML case study.

OOXML vs ODF – Local and international responses to the use of Microsoft formats as a standard

Andrew Rens and Rebecca Kahn

Introduction

In 2007 and 2008, South Africa was at the forefront of the growing global movement to promote the use of open standards in computer software both at home and on the international stage. While the principles of the use of open document standards, specifically the global standard; Open Document Format (ODF) are an important part of this case study and will be discussed, it was the response from South African academics, activists developers and politicians to the possibility of proprietary software becoming the standard that is most significant in the context of A2K organising and activism in South Africa.

In order to explore this theme further, it is important to understand the background to the ODF experience in South Africa.

Context: Standards, technology and patents in South Africa

Modern states rely increasingly on the processing of information through information and communication technologies for their core functions. The technologies deployed by a state are therefore not incidental to its form but instead are powerful if often unrecognised influences on that form. As Sandra Braman states:

> "Because informational power has altered the materials, rules, institutions, ideas, and symbols that are the means by which other forms of power are exercised, a new type of system, the informational state, has emerged. Information policy is thus key both to

> understanding just how this change of state has come about and to analysing how the informational state exercises power domestically and around the world. Information policy is the proprioceptive organ of the nation-state, the means by which it senses itself and, therefore, the medium through which all other decision-making, public or private,takes place."[298]

One immediate consequence is that states, and governments have slowly come to pay attention to the effects of becoming dependent on proprietary software. OOXML was submitted for approval to the International Standardization Organisation (ISO).

Relevance to A2K

At first glance, the relevance of international document standards to the A2K movement in South Africa may seem ambiguous. However, having a legislative environment in South Africa which is conducive to the development of an indigenous software sector, one in which software innovation and production is allowed to flourish and the developing economy can enjoy the benefits of FOSS (Free Open Source Software) is essential for innovation to take place in all fields, including the development of open learning materials.

Stakeholders

FTISA, the African Commons Project, software vendors including IBM and Sun Microsystems, the South African Government (which had adopted ODF as the standard format for government communication in 2004), South African Bureau of Standards, Microsoft, ECMA and the International Standards Organisation.

Background to Concerns

[298] An introduction to information policy in *Change of state: Information, policy, and power*, p4 Cambridge, MA: MIT Press, 2006

These concerns, outline briefly here are primarily operational concerns, vital to the functioning of the State, but largely internal.

Some proprietary software, such as the Microsoft Office Suite, the dominant software during the global shift from stand alone main frame computers to networked desk top computers, uses proprietary formats. At some point every proprietary format is no longer supported, either because the vendor has ceased to operate, or because the vendor no longer regards the format as important. As a consequence a state which has stored its records in that format can no longer access the information, such as birth and death records, it needs to carry out its most elementary functions; namely issuing passports, raising taxes, identifying individuals. The problem of heritage documents vividly illustrates the problem of dependence on any vendor. However vendor dependence, known as 'vendor lock in' creates a number of other problems for the day-to-day business of governance. Reliance on a single vendor's proprietary format creates a single point of failure for government - if the software fails, then the government is reliant on the vendor's response for its core functions, and very survival. The monopoly power which the vendor obtains over the government including the high costs of switching to another format, enables the vendor to raise prices beyond market prices without the threat of competition.

For developing countries the tendency of proprietary software vendors in developed countries to include code designed to report back alleged unauthorised copying of copyright works (so called Technical Protection Measures) is especially concerning since it amounts to the installation of spyware which reports to the corporate citizen of another sovereign in the governments core systems. Since almost all proprietary software vendors are located in the global North, the use of proprietary software results in royalty payments financed by developing country taxpayers to the global North, with negative consequences for the balance of payments, and the tax base.

However when governments adopt open standards these harms are mitigated. When documents are stored in formats which comply with open standards then a range of vendors and service providers are able to provide software and services, whether proprietary or free and open sources software (FOSS). A government is no longer tied to a particular vendor but can easily switch between vendors, or procure products and services from a combination of

vendors. If a demand arises for particular products or services and there are no existing suppliers then market incentives can operate, new players can enter the market without claims of infringement of intellectual property rights. Developing countries can stimulate the growth of local information technology by through adopting open standards.

From an access to knowledge perspective these operational issues are overshadowed by the effects of state dependence on proprietary software formats on access to knowledge by the people living in that state. People who need access to state held knowledge are barred from doing so if they do not have the proprietary software needed, in other words if they cannot pay the premium for the proprietary software used by the state. Propriety software dependence thus amounts to economic discrimination.

To counter proprietary software dependence the governments adopt open standards. On 24 October 2007the Minster of Public Administration; Geraldine Fraser-Moleketi, introduced version 4 of the Minimum Interoperability Standards for Information Systems in Government (MIOS)[299]. The MIOS sets out the requirement for a standard to be regarded as open, which The MIOS states "shall be considered open if it meets all of these criteria." The criteria listed by the MIOS are

> "· it should be maintained by a non-commercial organisation
>
> · participation in the ongoing development work is based on decision-making processes that are open to all interested parties.
>
> · open access: all may access committee documents, drafts and completed standards free of cost or for a negligible fee.
>
> · It must be possible for everyone to copy, distribute and use the standard free of cost.
>
> · The intellectual rights required to implement the standard (e.g.

[299]http://www.sita.co.za/standard/MIOSv4.12007.pdf

essential patent claims) are irrevocably available, without any attached.

· There are no reservations regarding reuse of the standard.

· There are multiple implementations of the standard"[300]

The MIOS adopted the Open Document Format (ODF). ODF was developed by a group of software developers, including proprietary software vendors and free software coders through the Organization for the Advancement of Structured Information Standards (OASIS) and approved as a global open document standard in May 2006 by the International Standards Organisation (ISO).

ISO describes itself as a "non-governmental organization", "the world's largest developer and publisher of International Standards" and "a network of the national standards institutes of 162 countries, one member per country". ISO is not an intergovernmental organisation, nor does it form part of the United Nations, although it is based Geneva, where many UN organisations have their are head offices. Software which uses ODF as its native format includes Open Office.

In June 2006, the South African patent office had granted a patent to Microsoft Corporation, Redmond. The patent is entitled "Word-processing document stored in a single XML file" and it describes much of the word-processing feature set of what later became known as Microsoft's OOXML file format. In an initiative started initially by Bob Jolliffe, then a Computer Science lecturer at the University of South Africa, and the Linux Professionals Association (LPA) with the support of Meraka Institute Open Source Centre, an initial request was made to Microsoft's local attorneys, asking that their client voluntarily surrender the patent. Microsoft Corporation, Redmond, rejected this demand. This led to the formation of Freedom to Innovate South Africa (FTISA) a not-for-profit voluntary association of civil society which would take the dispute further. In preparation for the potential risks associated with legal action the individual liability of its membership was limited[301].

[300] MIOSV4.12007, p10
[301] Jolliffe, B: *Freedom To Innovate in South Africa: the Struggle Against Software Patents (2009)*

Background to OOXML's consideration at ISO:

Although Microsoft had participated in OASIS and the the development of the Open Document Format standard, it also developed another document specification, based on its own proprietary format, called Office Open XML. Microsoft introduced OOXML to an organisation known as Ecma International, (ECMA) formerly the European Computer Manufacturers Association**.** ECMA describes itself as is "an industry association founded in 1961" for Information and Communication Technology (ICT) and Consumer Electronics (CE). ECMA is an member of ISO, and in turn submitted OOXML as a putative second document standard to ISO although ODF (which was already in use by a wide variety of software including the open source community) had been adopted as the standard for open document formats by the International Standards Organization before the introduction of OOXML. ECMA used its knowledge of standards processes to place OOXML on the ISO fast track process – a process which if successful, would have led to the existence of two mutually incompatible standards documents.

The ISO fast track process required that members vote on the standard. At the behest of Microsoft the South Bureau of Standards convened a sub-committee to make a recommendation whether South Africa should vote for the aspirant second standard. On 18 July 2007, SC71L, a sub-committee of the South African national standards authority, the South African Bureau of Standards, was asked to make a technical assessment and recommendation on how South Africa should vote on the further progress of the proposed standard that would allow for the approval of OOXML.

At the vote, the committee, made up of various stakeholders including representative from civil society, voted overwhelmingly[302] to reject the proposal that OOXML become the standard. This decision went on to inform the way South Africa voted at the International Standards Organisation meeting later that year.

[302]Specifically the votes amounted to 2 votes of yes, with comments; 2 votes of yes, without comments; and 13 votes of no, with comments.

The process by which Microsoft's OOXML document format was adopted as an international standard by the International Standards Organisation and objections to that process

The International Standards Organisation, based in Geneva is a global standard-setting body composed of representatives from various national standards organisations. While ISO defines itself as a non-governmental organisation, its ability to set standards that often become law, either through treaties or national standards, makes it more powerful than most non-governmental organisations, and in practice, ISO acts as a consortium with strong links to governments.

In early 2008, ISO adopted a ballot resolution to vote on whether OOXML should become a second global standard. Many governments, civil society organisations and software developers objected to this proposal, pointing out that ODF, a universally compatible standard, had already been adopted in 2006.

In the run up to the vote, there was a great deal of lobbying of members by both the open source lobby and Microsoft. The South African government made it's views on the matter clear – in a speech made just before the vote, the then Minister of Public Service and Administration, Geraldine Fraser-Moleketi pointed out that software patents pose a threat to developing nations and that open standards are a critical factor in building interoperable systems that are important to governments.[303]

At the vote in early April 2008, South Africa along with a other countries including Canada, Venezuela, New Zealand, and emerging economies China and India voted to reject the application. However, OOXML claimed victory by 86% of the votes. During and after the ballot procedure there were extensive claims that the process had been compromised, and

[303]http://www.tectonic.co.za/?p=2304

Microsoft had intensely lobbied many countries that had traditionally not participated in ISO and stacked technical committees with Microsoft employees, solution providers and resellers sympathetic to OOXML.

The fall-out from the voting process was as extensive as it was dramatic. The head of the Norwegian delegation at ISO resigned from his position, claiming that, although the majority of the Norwegian technical team were opposed to approving OOXML as a standard, they were overruled by the bureaucracy at Standard Norway. Public protests were held in Norway and Minister Fraser-Moleketi's speech was quoted by the protesters.

Ubuntu founder Mark Shuttleworth expressed his disappointment in the decision, telling interviewers it was is a "sad" day for ISO and the computing public.[304]

In May 2008, the South African Bureau of Standards decided to appeal the ISO vote and results. The ISO procedures do not admit an appeal of the actual results of such a ballot but , but rather they permit an appealed on the validity of the Ballot Resolution process that led to the vote. South Africa appealed and was soon joined by Brazil, India and Venezuela in the appeal.

In July 2008, the chiefs at the ISO delivered a recommendation to the ISO technical management board (TMB) to reject appeals against the process to ratify Microsoft's OOXML as an international standard.[305]

Conclusion

The dispute over document standards highlights how technical specifications are no longer the domain of technical experts, since they can limit or enable access to knowledge.

[304]http://blogs.zdnet.com/open-source/?p=2222
[305]http://www.groklaw.net/article.php?story=2008070907285710

Case Study: Intervention in the Merger between Pearson Plt and Harcourt Int.

Rebecca Kahn, Maarten Van Hoven, Diane Terblanche

Introduction

This study examines an intervention into the automatic review of a a publishing merger by the South African competition authorities. The case was of particular significance to the A2K movement because of the significant market share of the textbook publishing industry that both entities controlled. Textbooks are an expensive and scare commodity in South Africa, and for many school children are the only books that they come into contact with. Rather than being commodities, they are sources of understanding and ideas, powerfully formative in shaping their views of the world.

The case involved the proposed merger between Pearson plc and Harcourt Int, two international learning materials publishers who, in 2007, signed a merger internationally, which would have had a major impact on their local subsidiaries, Maskew Miller Longman and Heinemann, both of which are significant players in the educational publishing sector in South Africa.

Local content, relevance, clarity and diversity, rather than mere price, are critical issues in equipping children to live in a quickly changing, extremely diverse society. Equally critical is the issue of preparing children for their future participation in the the economy, and it was these issues that would have been negatively affected by a reduction in titles.

If approved, the merger would have given Pearson the legal and economic power to potentially reduce the number and range of titles. The size of the merger qualified it for automatic review by the Competition Commission of South Africa in terms of Section 12 of the Competition Act 89 of 1998 who has the power to prohibit the merger and prevent those

consequences.[306]

Stakeholders

Several stakeholder in the governmental and non-profit sectors in South Africa were involved in this intervention, however the main role player was the Shuttleworth Foundation, a non-profit organisation dedicated to social development, especially social and policy innovation based in Cape Town, South Africa and founded by Mark Shuttleworth in 2001.

Overview

In mid-2007, the Shuttleworth Foundation, supported by Open Society Institute of Europe (OSI Europe) instructed Johannesburg-based law firm Jowell Glynn & Marais to make a submission to the Competition Commission of South Africa regarding the proposed merger of Pearson Plc and Harcourt Int, two global educational materials publishers. As well as submitting to the Commission, the Foundation also made submissions to the South African Departments of Trade and Industry, Arts and Culture and the Department of Education

The proposed merger had the potential to significantly affect the South African textbook market, since both Pearson Plc and Harcourt International are principles of large local textbook publishers, namely Maskew Miller Longman (Pearson) who, at the time, had an approximate market share of 36% and Heinemann (Harcourt) whose market share was worth approximate 13%[307].

Not only was the potential 49% of market share seen as a reason to object to the merger; the structure of the South African textbook publishing market is a complex one, and any merger between two of the largest entities would have had significant impact on the development and supply of these essential resources. As a result, in their submission to the Commission,

[306]Rens, Andrew – blog post http://aliquidnovi.org/2007/08/10/pearson-harcourt-what-are-the-stakes/ accessed 14 July 2009

[307]Submission to the Competition Commission, Annexure A by Terblanche, D. and Van Hoven, M. 25 September 2007

Shuttleworth divided their objections into two separate ares of concern: the competition aspects and the public interest aspect. However, in the interest of clarity, a brief overview of the South African textbook publishing and printing industry is useful at this point, before the objections are detailed:

Textbook Publishing in South Africa

Educational publishing in South Africa is a highly concentrated market, and there are only a handful of players who operate with any real margins of profitability. Maskew Miller Longman is by far the dominant player, followed by Nasou Via Africa, Heinemann and Oxford University Press (in order of market share).

Publishers invest in developing and printing school textbooks which are then marketed and sold to the various provincial departments of education through a complex and lengthy tender process. This requires significant capital investment, and is only likely to render a return once the book has been approved by the provincial departments of education and thereafter successfully marketed to the individual schools within each province. Both Maskew Miller Longman and Heinemann sold a wide range of textbooks covering all of the major subjects, including technical subjects that are critical to essential skills development in South Africa, such as Maths, Science and Accounting. On the whole, textbooks are commissioned based on the Department of Education's curriculum. This means that textbooks must conform to the South African teaching curriculum, inhibiting the use of textbooks produced in other countries.

Even in cases where suitable textbooks may be available at a lower cost via other developing countries (such as India) the South African Copyright Act 1978 prohibits their importation. More specifically, in Section 23 (2) it states that, without the consent of a South African licensee for the same work, such imports are unlawful.

The South African textbook publishing market is one which is subject to significant barriers to entry. Marketing cost in particular is substantial, and essential in order to successfully operate in this market. In a report commissioned by the National Department of Arts and Culture through the Print Industries Cluster Council, published during January 2007 (know as the Genesis Report), it became evident that the provincial education departments are not price sensitive as they do not use price as a criterion for judging text books for approval. The

price of a particular product is usually the driving force behind consumers switching between substitutable products. In this market it is clear that the customer, more particularly the government, is not sensitive to price. This is an indication of the inability on the part of government to enhance competition. As a result consumers (taxpayers, schools and learners) bear the brunt of high prices.

At the time of the proposed merger, all the big players in the market were owned by foreign controlled international corporations with one exception (Naspers). This meant that South African firms (including small and medium publishers) faced competition from international firms, which are enabled by a quirk of South African copyright law, to charge higher prices in South Africa than in other developing countries.[308]

Lead times for the publishing of textbooks were often very short, as a result of the need for content to conform to the Department of Education's syllabus before approval, and the demand for large quantities of text books. During the research for the submission, the Shuttleworth Foundation found that small players in the market struggled to find printers in periods of peak demand, whereas the larger publishers like Maskew Miller Longman had no such problems.

The overall lack of diversity and variety in the market meant that, on the whole, there was little range in the textbooks that were available. Variety, suitability, appropriateness and local context of learning materials are crucial for effective education. This is especially pertinent for formulating students' appreciation of diversity and a variety of viewpoints essential in a democratic society. Considering the wide ranging demographics of South Africa and the varied cultural backgrounds of the population, it is critical that students be provided with text books and study materials which they can understand which will ensure that knowledge is transferred effectively.

[308]Open Review of South African Copyright Act 2008

Although the textbook market in South Africa is valued at approximately R 1,2 billion per annum, it is of disproportionate importance and focused on one customer – the the government. It is only through government that every schoolchild in the country gets (or is supposed to get) textbooks and these textbooks are often the only books that a child may see. This gives disproportionate power to a small group of larger companies in this schoolbook market.

Objections to the proposed merger[309]

As stated earlier, the objections made to the merger, and included in the submission made by the Shuttleworth Foundation to the Competition Commission, were divided into two main concerns; namely the competition and the public interest analysis of the merger.

Competition Aspects

The submission raised concern over the size of a pre-merger Maskew Miller Longman, and the potential domination it might have over the market if it were to join with Heinemann. These concerns were reinforced by the the results of a study conducted by the British Publishers Association and the British Council. The study showed that, when Maskew Miller Longman was hit by a slump in textbook sales in 1997 (as a result of cutbacks in spending by the government) it went on an aggressive acquisition strategy to shore up its market share. The company acquired, in quick succession Kagiso, Sached Books and Perskor. This was taken as an indication of the abilities and intentions of Maskew Miller Longman; abilities that would in all likelihood be fortified by a merger.

The facts that a merger would result in the removal of an effective competitor in what is already a highly-concentrated market which is constrained by high barriers to entry and few players was also highlighted in the submission, as were the market dynamics of textbook publishing and the role that the Department of Education plays in determining which books are to be used by schools.

[309]Shuttleworth Foundation submission to Competition Commission, July 2007

From a competition perspective, the submission considers it critical for all concerned (including national and provincial departments of education, schools, teachers and students) that effective competition exist in the textbook market, to the following effects -

• Books will become more affordable and accordingly can be distributed to a greater number of schools and students;

• Budgets could extend to a wider base which will allow a greater proportion of the population to benefit from that. Competition will ensure that a wider range of text books are available which will enable deeper, more sophisticated, research in presenting practical quality learning material to students. Variety, suitability, appropriateness and local context of learning materials are crucial for effective education. This is especially pertinent for formulating students' appreciation of diversity and a variety of viewpoints essential in a democratic society.

• Considering the wide ranging demographics of our country and the varied cultural backgrounds of the population, it is critical that students be provided with text books and study materials which they can understand which will ensure that knowledge is transferred effectively.

Public Interest Aspects

The submission also focused closely on the potential impact the merger might have on the public interest in South Africa. Although the submission went into substantial detail of the effect textbooks can have on society, and the legacy of apartheid-era textbooks and pedagogies, the basic tenet of the argument are as follows:

The textbook publishing industry in South Africa is small, but strategically it is extremely important to the development agenda of South Africa.

The deepening skills shortage in South Africa has resulted in various attempts being made by

National Government (and other organisations) to develop more learners that have an aptitude for Maths and Science. In order to develop these subjects it is critical that appropriate quality textbooks be available which will encourage learners to study.

If a wider range of textbooks are available which present the same content in a different form or design the Department of Education has a better opportunity to find material which learners are more likely to understand, and therefore enhance learning. It is therefore critical to ensure as wide as possible range of learning material is made available to our learners.

The submission pointed out that the merger would result in a reduction in the amount of titles as it makes economic sense for the parties to reduce titles, if not immediately then over time. This has the effect of reducing choice, quality and diversity which are two critical aspects for this industry.

The submission also made the point that the transaction will inhibit the ability of historically disadvantaged persons, who are involved with the small to medium enterprises or firms, to become competitive. In researching the submission, it was found that Maskew Miller Longman, with the benefit of a strong balance sheet, was in the habit of distributing free samples of books to schools, a practice which forces smaller publishers who cannot afford to do the same, out of the market. The proposed merger would only, in the opinion of the submission, make it easier for these kinds of practices to continue, further strengthening the already dominant Maskew Miller Longman.

The prices paid for text books in South Africa have been shown to be expensive as compared to other countries. A definite contributing factor is the already high concentration that exists in this market. The proposed merger would have further concentrated the market and would have, in the opinion of the submission, reduced the choices available to South African learners which in turn would have had a negative effect on quality, variety and suitability of learning material and subsequently negatively impact on the level of education, and ultimately the economy.

Based on both of these aspects and objections to the merger, the Shuttleworth Foundation and its partners submitted that the transaction ought to be prohibited.

Outcomes

In their ruling on the case, the Competition Commission of South Africa considered both the competitive aspects and the public interest aspects of the submission. They did find that the proposed merger would unfairly skew the textbook publishing market. To wit:

"*...should integration of the MML and Heinemann businesses occur, the merger may skew the playing fields and limit the expansion of players already in the market.*"[310]

and

"*...The Commission considered that should the merger lead to the integration of the MML and Heinemann businesses, it is likely that MML would enjoy significant cost savings, thereby increasing its profitability extensively. The merged entity would be able to market more aggressively, flooding the market with free book samples. This would increase the barriers to entry and limit the expansion of small businesses already in the market. Hence, should the merger lead to the integration of businesses, it is likely that this would impede the ability of small and medium sized businesses to compete in this market.*

Furthermore, the Commission also considered that should the merged entity reduce the number of book titles in the market, this may have the affect of reducing choice and variety in the market. The merger would likely raise some competition and public concerns should integration of the MML and Heinemann business occur..."[311]

[310]Competition Commission report
[311]Ibd

As a result of their findings, the Commission approved the merger of Pearson Plc and Harcourt Int abroad, but ruled that "...Pearson plc and Maskew Miller Longman Holdings shall not without the prior written consent of the Commission, integrate the businesses or any of the business functions or operations of Maskew Miller Longman Holdings and Heinemann Publishing South Africa."

Summary

The competition authorities were duty bound to review the merger in question. Intervening in an existing process required exceptionally quick reaction, and existing expertise on the structure of the book publishing market, and its impact on access to knowledge and of the legal provisions relating to market structure, both competition and copyright law. The intervention had the advantages not only of resisting further concentration of the textbook market, but bringing the current conditions of concentration in the textbook market officially to the notice of the competition authorities. It also brought these issues to the attention of the press. Intervention in review of a merger by the Competition Commission does not carry the risk of an adverse costs order, and requires less evidence than a complaint to the Competition Commission. It does however require significant preparation, an ability to respond quickly, and an opportunity.

Open Educational Resources at the University of the Western Cape

by Philipp Schmidt

Introduction

This case study examines how a previously disadvantaged University from South Africa can become a world-leader in opening access to educational resources.

This case study raises two questions: What can a South African university with limited resources do to increase access to learning materials in its own backyard; and how can it play an active and leading role in the global OER movement that is largely shaped by well-resourced institutions in developed countries? We focus on the particular case of OER, but the same questions can be asked about other aspects of the increasing access to knowledge

Local Context: the University of the Western Cape

The University of the Western Cape (UWC) is one of 23 institutions of higher education in South Africa. It was founded in 1959 to offer limited training for the "coloured" population of the Cape Peninsula. In 1982 UWC updated its mission to renounce segregation, reject apartheid and commit the institution to a non-racial South Africa. Through the Western Cape Act of Parliament it became a full university in 1983.[312] Under Rector Jakes Gerwel, who was appointed in 1987, UWC evolved into the "intellectual home of the left" and subsequently played an important role in helping exiled political and academic leaders return to South Africa in preparation for the country's first democratic elections in 1994. The institution readily embraced the challenges of preparing its students for a democratic society, and training the first generation of bureaucrats and professionals that would be needed in post-apartheid South Africa. To date UWC continues to graduate more non-white and previously disadvantaged students than any other South African universities, both in absolute numbers and percentages.[313]

[312]http://www.sarua.org/?q=uni_University+of+the+Western+Cape
[313]http://www.timeshighereducation.co.uk/story.asp?storyCode=98284&sectioncode=26

The Context: Open Educational Resources

The global OER movement has released many textbooks, course outlines, lecture notes, and other educational resources. Most of the institutions that are publishing these materials are based in developed countries and many are considered among the best universities of the world, including MIT, Yale, Stanford, the Open University UK, and KEIO University. Their laudable goal is to make educational resources available at no or little cost to those that lack access. There is an expectation that this will support broader efforts to address the skills shortage and need for human capacity in developing countries. While developing countries are often mentioned as key beneficiaries of the OER movement, relatively little support and resources have been dedicated to supporting OER projects in those countries directly. This does pose a challenging question about the location and origin of appropriate knowledge as it suggests that the most appropriate educational resources for South Africa are developed by institutions in other countries.

This case study asks: "What are the barriers, and benefits for a medium-sized South African university to participate in the OER movement, not as a recipient of knowledge produced elsewhere, but as an active participant?"

The University of the Western Cape has a long history of active participation in the free/open source software movement. Extending the concept of shared ownership of intellectual works from software to educational content, the institution approved a Free Content and Free/Open Courseware Strategy in November 2005 and created a Free Courseware project with a staff of two in Mid-2009 to raise awareness and implement the recommendations of the strategy.

Stakeholders

Key stakeholders of the project include the senior management of the University of the Western Cape, and especially the Director of Information and Communication services, into whose portfolio the project work fell; the project team members; the academics who

participated; the students, who embraced the ideals of an open education project and created their own repository; and the OpenCourseWare Consortium, a network of more than 200 universities, which elected UWC to serve on its board and help shape its global strategy.

Key beneficiaries include self-learners who access the published materials, and other institutions who make use of them in their own teaching, as well as UWC itself, because its participation in the open education community has lead to interesting opportunities for collaboration with international partners.

Project Overview

Initially, the infrastructure and processes needed for publishing open courseware materials were put in place. A server was set-up to host the open-source "educommons" publishing software, which UWC continues to use to host its open educational resources. After relying on internal technical support for the first year of the project, an outside consultant was hired to re-install the server and provide remote management. While the technology was set-up a group of interested academics was identified as potential authors of the first set of courses. We attempted to select materials that show-cased special expertise, were relevant to the developmental context of Southern Africa, and already existed in electronic formats. For example, some of UWC's Law Professors were involved in drafting the South African constitution and we published a Constitutional Law course. The UWC School of Public Health provides the top distance public health programme on the continent and offered to share some of their materials. All courses are published on the UWC OpenCourseWare portal at http://free.uwc.ac.za

In addition to making course materials available, the project was interested in the effects of open education practices on teaching and learning. It facilitated the RipMixLearn project to investigate the role of students as creators of knowledge. Academics from a variety of field participated and experimented with different technologies (wikis, blogs, peer-assessment

applications) in their courses. The project received external funding from the Shuttleworth Foundation, a non-profit organisation based in Cape Town that drives social innovation in the areas of technology and education.[314] The results are made available on the research group home-page at http://free.uwc.ac.za/ripmixlearn

As an open courseware pioneer in Africa, UWC also played an integral role in the development of the OpenCourseWare consortium, an effort by MIT to create a global network of universities who publish and share open courseware. UWC participated in the governance discussions that led to the incorporation of the consortium, and UWC's Free Courseware Manager has served on its first board of directors since April 2008.

Partly as a response to the high effort required by the traditional model of OpenCourseWare publishing (that depends on the lecturer and requires skilled support staff), the project has started a student-based OER community called RipMixLearners. A group of 15 students was trained to record their lectures. In addition to recording and editing the audio files, students collect presentation slides and hand-outs, and compile them on a wiki for themselves and their peers. Anecdotal evidence suggests the project has had a positive impact both inside and outside of the institution. Zimbabwean students wrote an email to thank our team for sharing resources on Natural Medicine, which would have been unavailable to them otherwise. UWC students used the materials to catch up on missed lectures, an common issue as many students need to work in order to support their studies. Most importantly the RipMixLearners themselves have developed useful technology and communication skills, and show a higher sense of engagement in their own studies. The Free Courseware project provided initial support to the students in partnership with UWC's Digital Media Studio , which has now taken over ongoing management of the project.

At the senior management level, these A2K related activities – both free software development, and open education projects – were positioned within a context of political freedom. The freedom to create and share knowledge was related to the struggle for political

[314]http://www.shuttleworthfoundation.org

freedom in South Africa that UWC had proudly participated in. This conceptual link was useful to garner support of the institution's executive, and provided the management support necessary to experiment with very innovative concepts of sharing knowledge.

At the department level, and for individual academics, these arguments seemed less relevant. High teaching loads, and increasing pressure to publish research, made them reluctant to get engaged in new projects, which would take time and effort and were not directly rewarded by the incentive systems in place. This was a challenge that turned out to be an advantage. The academics that ended up getting involved, were the ones that were most committed to the ideal of sharing knowledge and experimenting with technology in teaching and learning.

Academics participated for very different reasons. Among those who made their materials available for publication one can broadly distinguish two types. Some bought into the idea of sharing their knowledge and were happy for the materials to be more widely diffused, without expecting any direct benefits in the form of attention or reputations. The fact that the project was offering to do the formatting work and take care of hosting the materials was sufficient incentive. UWC's School of Public Health is a good example for the second group, which took a more strategic approach. SOPH offers a distance-education Masters in Public Health and owned a set of high-quality teaching materials. Demand for their programme far outstripped capacity, and SOPH was happy to share some of their materials so that others, who could not join the course directly would be able to study on their own. At the same time, SOPH was very aware of the potential to showcase some of their unique expertise and carefully reviewed all of the content that was published on the OER portal.

The main driver for participation in the RipMixLearn research group was a strong interest in the opportunities that open education practices hold for improvement of teaching and learning. The academics that joined the group were interested in innovation, and had been looking for a community of like-minded academics on campus to work with. The opportunity to publish research about their experience provided an additional incentive.

Outcomes

In the first project phase UWC developed and published six courses in the areas of Constitutional Law, Biodiversity, and Public Health (it will add a further four courses before the end of 2009). The materials are accessed by more than 1000 visitors per month. The majority of visitors are based in the U.S. and the most popular resources are those of the School of Public Health.

The board membership at the OpenCourseWare consortium created an opportunity for UWC to more strongly articulate the position of OER project and users in Southern Africa within the global OER community. Engaging with the OCWC has also had direct benefits for UWC and lead to a number of interesting opportunities for collaboration, including collaborative development of public health case-studies with other universities, and a student-exchange for the RipMixLearners.

An unexpected outcome of working with students, has been the strong engagement they have shown in their own studies. Some of the students who started recording lectures and compiling learning materials are now playing important support roles for their fellow students, distributing information about the studies that go much beyond the content of the lectures. For example, one student posted a notice on the RipMixLearners portal to remind her colleagues to get the required vaccinations for field work in following next semester. Others are disseminating information about bursaries.

Summary

This case-study shows that with relatively few resources (the entire annual budget of the project is only little more than the cost of publishing one of the initial MIT OpenCourseWare courses, which was roughly US$ 16,000) a South African University can create a successful open education project.[315] However, many challenges and questions, and much work remains.

[315]According to an email by Steve Carson, External Relations Director of MIT OpenCourseWare, the total project cost for publication of the initial 1800 courses was US$ 29 million.

Overall, policies and regulations at most institutions and at national level, continue to hinder rather than help OER projects. In a country with such need for education and capacity building it is frustrating to see the current discourse on research policy focus on strong protection of intellectual property – rather than the promotion of open sharing to achieve broader and more equitable access to knowledge.

The North-South dynamics expressed in funding committed to OER projects, and the amount of course materials published, remain virtually unchanged. Challenging this imbalance will not only require real commitment to collaboration on the part of the developed country institutions, but also a more confident and pro-active approach by institutions in South Africa. Opportunities exist, but too often internal politics (not policies) stand in the way of innovation and progress.

Finally, if one message should stand out from the experience at UWC, then it is the power that lies in the enthusiasm and curiosity of students. It can reach further than large amounts of funding or carefully drafted strategy documents ever will.

Building Open Educational Resources from the Ground Up: South Africa's Free High School Science Texts

By Lisa Petrides, Cynthia Jimes, and Thad Nodine[316]*,*

Description

Free High School Science Texts (FHSST) was created to develop a free high school science text for all teachers and learners in South Africa. As the scope of the project expanded from creating one text to developing four (in physics, chemistry, life sciences, and mathematics), FHSST faced several key challenges and opportunities, including recruiting volunteers and adapting for growth, sustaining communities of volunteers, ensuring that content is relevant and sustaining the project and its processes. On the whole, the findings of the FHSST case study imply that an important aspect of project sustainability involves the implementation of practices that replicate the characteristics of open educational resources themselves: namely, those that are collaborative and peer based, and that invite continuous improvement by stakeholders. For other OER projects, this indicates the potential necessity of developing community-centred technologies, processes, and cultures that can support experimentation, self-assessment, and adaptation, while maintaining and continuously reinforcing a clear sense of overall mission.

A2K relevance

Partly because the development of open educational resources (OER) is a relatively new field that is just now receiving more widespread attention and study, there have been few opportunities to share knowledge across program, organisational and national boundaries. FHSST was chosen as the case under study based on evidence of milestones reached in successfully creating standards aligned, peer produced open educational content. FHSST started in 2002 by five individuals with a vision for improving South African education through the creation of a single science textbook, and evolved into a four book project where volunteers from across the globe successfully collaborated to complete content that met curriculum standards and local teaching and learning needs.

FHSST was also chosen as the case under analysis because it was a self-aware project, interested in research as a means of self-evaluation and improvement. Before the case study

[316] Based on a case study by SKME Institute for the Study of Knowledge Management in Education October 2007, summarised and adapted by Kahn and Rens, see Sources for further details.

research began, FHSST had conducted teacher and learner trials of its textbook content in eight South African schools in order to ensure that the content met local teaching and learning needs. FHSST expressed further interest in additional research to assess other practices and issues that had not been internally examined, but which were deemed as central to the projects' success—issues including community engagement within its content creation process, and overall project sustainability.

Overview

In March 2002, Mark Horner, at the time a graduate student in physics at the University of Cape Town (UCT), presented a demonstration on waves at a science fair in South Africa. After the demonstration, several high school students approached him, explaining that they did not have a science textbook, and had never had wave phenomena described to them before. The students had pooled their money to purchase a notebook and pen, and they asked Horner to write down the demonstration, step by step, so they could share the notes with their classmates and teachers. Wanting to give the students more than the steps of a wave demonstration, Horner returned to UCT and engaged his colleagues in writing a high school science text that would be free and sharable for all teachers and learners in South Africa. In the process, Free High School Science Texts (FHSST) was born.

From the start, Horner and his colleagues at FHSST focused on the key science concepts that high school students need to know, the aim being to create a usable, relevant science textbook. Yet the more they became engaged in the project, the wider the circle of volunteers became, and the more they learned about the dearth of textbooks in both rural and urban schools in South Africa. The project grew from a vision to create one free high school textbook (covering grades10 to 12) to four, including physics, chemistry, life sciences, and mathematics. The expanded scope required more volunteers and contributions than expected, which in turn required continuous problem solving around the project's content development process to facilitate a larger community of contributors. The project experimented with refinements focused on enabling volunteers to help reach its content creation goals, including: parsing out content assignments into smaller segments to make their completion more manageable for volunteers; facilitating face-to-face means of content creation and support; and providing more collaborative tools for peer feedback, such as online forums and local meeting opportunities.

As the project progressed, the founders realised that adequately serving the needs of South

African teachers and learners required an informed understanding of existing content requirements, both in terms of the government and the schools themselves. Therefore, FHSST worked with a curriculum expert within the government to ensure that the texts met the Ministry of Education's national curriculum guidelines. In addition, FHSST conducted teacher and learner trials and workshops in eight pilot schools, in order to receive feedback about how to make the texts more relevant, useful, and adaptable to local teaching and learning needs. This attention to top down requirements and bottom up needs necessitated new levels of attention, expertise, and support. As project leaders began to search for funding to support these needs, the fundraising process itself became a process of trial and improvement. The project obtained its initial funding four years after its inception, in 2006.

Motivations and Outcomes

As Free High School Science Texts expanded its scope and sought to ensure the success of the project going forward, it faced many new challenges and opportunities, including that of recruiting volunteers and adapting for growth, engaging communities of volunteers, ensuring that content was relevant, and overall, sustaining the project and its processes.

Recruiting Volunteers and Adapting for Growth

Two early attributes of Free High School Science Texts (FHSST) were crucial in assisting the project to reach its key milestones. These attributes included developing and communicating a strong vision to its stakeholders, and adapting and modifying practices to better reach its goals. Both of these attributes were instrumental in recruiting communities of active volunteers to the project, and in keeping these communities focused on the overall goal: free textbooks for all.

As the scope of the project grew from creating one text to developing four (in physics, chemistry, life sciences, and mathematics), Horner and his founding colleagues realised that they needed to expand their circle of expert volunteers to assist in writing, editing, and compiling the content. As FHSST developed, it used several processes, both traditional and electronic, for expanding its volunteer base, including posting announcements on global list serves, distributing fliers on college campuses and at other venues, networking with fellow graduate students and other colleagues, creating contests, and eventually putting announcements on Facebook and other social networking sites.

This sense of being part of a larger vision transferred into a shared sense of community and

participation. In addition, the core volunteers not only felt part of a community but were also often eager to take on an "evangelist" role in spreading the project vision and its tasks to others. As of August 2007, the total number of usernames registered was 682, but not all of these had logged onto the site.

Passing along this role of project evangelist from the original founders to new core volunteers was important in helping the project expand its scope. Although FHSST used multiple methods (both traditional and electronic) to recruit volunteers and expand its base of project participants, the most successful means of recruiting active and core volunteers was through face-to-face networking, which they used effectively to communicate the project's vision. For example, most of the ten core contributors were colleagues of the founders or directly approached by one of the founders to engage their participation.

Experimenting with Processes and Technologies to Guide Growth

As well as developing and communicating a vision to potential volunteers, a second early attribute of FHSST was its willingness to continually reassess its practices and processes to achieve its objectives while the project was growing rapidly. For example, one early challenge that required ongoing assessment and adaptation was the selection and modification of an online peer production platform that could effectively facilitate content contribution processes for a wide range of geographically disperse volunteers. The project first set up a concurrent versions system (CVS) repository that was hosted on a platform that is commonly used by open source software development projects.

Getting volunteers set up to use the CVS repository was a laborious process, and volunteers needed extensive technical understanding. As a result, this placed a substantial burden on the core team volunteers, who had to facilitate contributions from the other volunteers. To lessen this burden, the project experimented with WikiBooks. Versioning control issues arose; however, as the freedom to edit allowed by the wiki platform hindered their workflow design.

As a result, FHSST shifted to a third solution, the eventual development and implementation of a content management system (CMS). Drupal was chosen because it was free, relatively easy to set up, and met volunteer needs effectively. The new Drupal platform was installed in early2006, and facilitated the move to a more structured, yet collaborative method of working on content in a peer based, online environment.

These revisions and updates revealed FHSST's emphasis on the importance of online means of communication through newly adapted processes and tools. For FHSST, incorporating the appropriate content authoring technologies to facilitate a smooth workflow and continued volunteer engagement was an ongoing, iterative process.

Sustaining Communities of Volunteers: Content Development

To maintain and support its growing community of volunteers, FHSST experimented with a variety of mechanisms to keep volunteers engaged and productive, including: dividing large content assignments into smaller segments so they were more manageable for volunteers to work on and complete; developing and supporting three stages of content development and editing; facilitating face-to-face means of content creation and support through "hackathons"; and providing collaborative tools such as online forums and local meeting opportunities, through which volunteers could communicate and offer feedback to each other.

Ensuring that Content Is Relevant: Localisation and Use

Through teacher participation, networking, teacher and learner trials, and workshops, FHSST solicited feedback from the end users of its content early in the content creation process in order to facilitate their buy in and ensure that the content was relevant, usable and adaptable to local teaching and learning needs. Importantly, this was accomplished within the parameters of state curriculum guidelines, so that the content matched policy requirements.

Over time, FHSST deemed that content creation and development needed to be accompanied by stronger efforts to ensure that the content met local teaching and learning needs. This learning and adaptation process included developing strategies such as more rigorous and defined editing procedures identified above. In addition, the project facilitated and improved authors' ability to create content that was aligned with the level of English appropriate for grades 10 to 12 in South Africa. FHSST further initiated other, larger scale initiatives to ensure the localisation and usability of the finished textbooks. These included curriculum guidelines alignment and teacher and learner trials.

For these trials, FHSST identified and partnered with eight Durban-area South African schools. The FHSST team first met with the school personnel to introduce them to the classroom trial concept and to identify specific content needs in science and mathematics in the classrooms that would participate in the trials. The participating teachers were then provided with textbook content from FHSST in order to pilot test the text's use over a two-

month period. Both teachers and learners were given pre-trial questionnaires to gather baseline data about their perceptions of their current textbooks, and post trial questionnaires to assess perceptions of the FHSST textbooks. The assessments included issues of readability, content, alignment to outcomes based guidelines, and overall usability. A follow-up workshop was also conducted with teachers involved in the trials to report back on the findings from the post trial questionnaire, and to delve deeper into the feedback received on the texts. Much of this feedback centred on the need to incorporate more examples and activities into the texts, to augment lab experiments to account for the limited resources and lab equipment within the schools, and to simplify the language of the text.

After the trials and workshops, FHSST created a list of high priority raw content and editing needs to address the feedback received from the teachers and learners. In addition, FHSST recruited and paid small stipends to four teachers who would serve as experts during the final round of textbook editing to ensure user needs were met and adherence to the outcome based syllabi. In a country where its teachers are not particularly well paid, these types of stipends played a significant role in the ability to recruit additional expertise to FHSST.

FHSST indicated that the time required for the teacher trials impacted overall project deliverables significantly, and that it would have been better to have factored this into its early strategy and deliverables planning. In addition, FHSST noted that during the teacher trials, the teachers did not use all of the content that they said they would need; the teachers had overestimated the amount of material that they would be able to cover. Because preparing the content in time for the trials was exceedingly time consuming, FHSST leaders noted that future trials would need to involve a more realistic assessment of content needs for the teachers participating in the teacher trials. Importantly, however, the teacher trials proved instrumental in improving FHSST's expertise in helping FHSST to confirm and identify the areas in need of improvement of the content itself. By including teachers and learners as part of its peer production model, FHSST strengthened its textbooks' quality, adaptability and use in local teaching and learning situations.

Sustaining the Project and its Processes

FHSST grew and developed from an initial idea to create a single science textbook into an online, collaborative, multi-text project with 50 active and sustained volunteers. Meanwhile, the project's core team worked to continuously improve its practices, processes, and outputs (the texts) by developing efficiencies and innovations. These adaptations ranged from new

technologies, tools and mechanisms to facilitate workflow and volunteers' ability to contribute content, to teacher trials to ensure adaptability and usability of the texts, to hiring paid editors at the final stages of the textbook writing to ensure content quality. In this sense, the sustainability of FHSST has been facilitated through the project's ability to create products that are usable by teachers and learners.

As the project grew, FHSST found that all of its work could not be accomplished through volunteers alone, as there were real and ongoing costs that needed to be met. As FHSST began to explore funding possibilities, they found that fundraising was itself an iterative process of development and adaptation. In 2004, two years after the project's inception, FHSST approached a potential funder through an initiative that sought to match education projects with sponsors. At that time, FHSST sought to cover the costs of the classroom trials, pay external editors to ensure content quality, and cover the costs of the printing and distribution of the books. It was understood early on that the majority of the FHSST textbook dissemination and use would necessarily be through print copies, due to a lack of Internet connectivity, computers, and electricity in parts of South Africa. Although FHSST was not successful in securing funding through this initiative and with this approach, the project did begin to build a relationship with an eventual funder.

In 2005, FHSST approached the funder directly with a different approach, requesting support for full-time project employees. FHSST requested a specific amount of support for the development of a number of edited textbook pages per month, for activities such as classroom trials and teacher workshops, and for content development competitions. No money was requested for printing and distribution of the textbooks. In adopting this approach, FHSST received the support needed to develop the textbooks.

At the time of this report, FHSST still has outstanding needs for external funding—specifically the printing and distribution of the math and physical science books and for continuing administration aspects of the project while it completes the remainder of its life sciences textbook. For this second round of funding, FHSST plans to approach corporations with strong social investment records in South Africa. However, questions about the sustainability of the project remain, including who will lead the project when the founders transition from graduate students within their respective science disciplines.

Outcomes and Results

FHSST serves as an example of a project that started with a vision for improving education, based on an articulated need and demand, through the creation of free high school textbooks. They successfully moved toward that vision by creating open educational resources (OER) from the ground up. With its textbooks projected for release and distribution in 2008, the project has the potential to improve teacher and learner access to quality educational content in South African high schools. In addition, the project has spurred the initiation of a wider South African project, which aims to create additional open content textbooks for primary and secondary students in all subjects.

Beyond its implications for South African education, the FHSST project can serve as a model for peer production of open content, offering insights into planning and decision-making. At the most concrete level, for example, it can provide insights into how a project might consider: recruiting volunteers; sustaining their participation; using technology to create effective workflow; conducting hackathons; or facilitating teacher trials. At a more general level, the FHSST project also offers insights into overall approaches and goals that may prove instrumental across open education projects as they seek to reach their vision.

Beyond its emphasis on content localisation and usability, this study revealed that a central issue of importance for FHSST was the ability to facilitate a community of volunteers who continuously contribute high quality content, and that this in turn necessitated ongoing technology and practice improvements—all toward the aim of making the content creation process as volunteer centric as possible. Furthermore, because a collaborative work culture that inspired a sense of urgency and shared vision played a large role in engaging and sustaining volunteer contributions, the case of FHSST also points to the necessity of developing both online and face-to-face mechanisms within projects that can facilitate such a culture. On the whole, the findings of the FHSST case study imply that an important aspect of project sustainability involves the implementation of practices that replicate the characteristics of open educational resources themselves: namely, those that are collaborative and peer based, and that invite continuous improvement by stakeholders. For other OER projects, this indicates the potential necessity of developing community centred technologies, processes, and cultures that can support experimentation, self assessment, and adaptation, while maintaining and continuously reinforcing a clear sense of overall mission.

On the whole, the case of FHSST suggests that a central aspect of project sustainability involves the implementation of practices that replicate the characteristics of open educational

resources themselves: namely, those that are collaborative and peer based, and that invite continuous improvement by stakeholders. For other OER projects, this indicates the potential necessity of developing community centred technologies, processes, and cultures that can support experimentation, self assessment, and adaptation, while maintaining and reinforcing a clear sense of overall mission.

Conclusions

FHSST demonstrated that curriculum aligned educational materials can be created through commons based peer production. A global community can contribute to a resource with specific national requirements: 'collaborate globally align locally'. The project thus demonstrates that educational resources can be created without the incentives of conventional publishing and the dominant all rights reserved copyright paradigm.

Sources

Most of the chapters of this report were created for the report, but a number are based on previous work, which, like this report was licensed under Creative Commons licences. Unless indicated otherwise authors retain copyright.

These sources are set out here.

Chapters 1 and 2 by Tobias Schonwetter, Caroline Ncube and Pria Chetty were first published as the African Copyright and Access to Knowledge (ACA2K) Project South Africa Country Report, www.aca2k.org, under a Creative Commons Attribution Share Alike 2.5 South Africa licence. This ACA2K South Africa research was carried out with the aid of grants from Canada's International Development Research Centre (IDRC) and South Africa's Shuttleworth Foundation, with ACA2K project management provided by the LINK Centre, Graduate School of Public and Development Management (P&DM), Wits University, Johannesburg. The ACA2K South Africa Country Report will be part of a volume of ACA2K materials forthcoming from Juta in 2010. Copyright Shuttleworth Foundation and Wits University.

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The Free High School Science Texts (http://www.fhsst.org/) Case Study is based on a case study carried out by Institute for the Study of Knowledge Management in Education (ISKME), for the Shuttleworth

Foundation: Building Open Educational Resources from the Ground Up: South Africa's Free High School Science Texts, ISKME, October 2007, by Lisa Petrides, Cynthia Jimes, and

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Contributor Biographies

Pria Chetty

Pria is an attorney, a member of the ACA2K South Africa team and is founder and Managing Director of founder of Technology and Innovation law firm, Chetty Law, Johannesburg. She completed her law degree in 2000 and went on to specialise in Electronic Law and Intellectual Property Law. Shortly after completing her admission exams Pria was asked to compile a national curriculum for Attorneys in South Africa on Computers in Legal Practice. As a part time lecturer, she also lectured Business Law, Labour Law and Commercial Law. An active commentator on the ICT industry, Pria has been approached for numerous speaking engagements at international and local events including the African ICT Summit and written articles that have appeared in amongst other publications: Leadership, Computing SA, I-Week, Tectonic, Music Industry Online and Engineering News. She has also been interviewed by SABC TV and radio channels regarding legal developments in the ICT industry. She is passionate about the impact that technology can have on development and hopes to play a strong role in shaping South Africa's innovation and development cultures.

Eve Gray

Eve is the Project Director of the OpeningScholarship Project, based at the University of Cape Town, South Africa. She has a background in academic publishing, is working on an number of projects related to open access and scholarly communications at UCT, in South Africa and other African countries, funded by the Shuttleworth Foundation, the IDRC and the Open Society Institute.

Cynthia Jimes, Ph.D.

is Director of Research at ISKME. She received her Ph.D. in Information Science from Uppsala University in Sweden. Her academic research focused on how both face-to-face and

technology-driven communication play a role in organizational learning and innovation. Before joining ISKME, Cynthia worked as an education data specialist at GreatSchools.net and focused on providing parents with information to inform their school choice and school improvement efforts. While living abroad (Sweden and the Netherlands), she also worked in the management consulting sector as a researcher and consultant. Cynthia's research interests include how communication and employee perceptions are related to the creation of the organization, and how online communities create content collaboratively. She is also interested in research on the integration of parents and students into school and district knowledge management models.

Bob Jolliffe

Bob Jolliffe holds a BSc Honours degree in Electronic Engineering from the University of Strathclyde and a MSc Computer Science degree from the University of South Africa. He lectured in computer science at the University of South Africa and the University of Pretoria, before joining the Council for Scientific and Industrial Research to help set up a national free/open source software resource centre. He has been actively involved in the politics of information both in civil society through FTISA and in government through his work on the South African open source policy and the minimum interoperability standard (MIOS). His knowledge of XML related standards has lead him to represent the South African Bureau of Standards as expert delegate to the ISO SC34 and JTC-1 meetings dealing with the Microsoft/ECMA OOXML standard for office documents. He has also represented the South African government on the OASIS technical committee responsible for ODF. He has since left South Africa and is based in Dublin, Ireland. He continues to serve on the OASIS ODF Technical Committee in his individual capacity. He is currently working on a global project initiated by the University of Oslo dealing with interoperability between free software health information systems in developing countries.

Julian Jonker

Julian Jonker received his LLB cum laude from the University of Cape Town in 2001. He went on to work in the cultural sector, as a researcher for the District Six Museum, and as a project manager and producer on various project in music, heritage and public culture. In

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Thad Nodine, Ph.D.

Thad Nodine is Vice President of ISKME and has over a decade's experience in education and higher education policy, from research and analysis to editorial management and strategic communications. Most recently, he is co-author, with Lisa Petrides, of Knowledge Management in Education: Defining the Discipline, and "What Schools Can Teach the Corporate World: Balancing People, Processes and Technology in Education," in KM Review. He has been managing editor of several publications, including Measuring Up 2000: The State-by-State Report Card for Higher Education and Losing Ground: A National Status Report on the Affordability of Higher Education.

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Philipp is a computer scientist with extensive experience in the application of information and communication technology (ICT) for social and economic development. He works with the United Nations University MERIT, where he conducts research on Wikipedia as part of the Collaborative Creativity Group, is a board member of the OpenCourseWare Consortium, occasionally collaborates with the Mozilla Education team, and co-organised the Open Everything Cape Town event. He's currently a fellow at the Shuttleworth Foundation, where he runs the Peer 2 Peer University Project.

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Tobias Schonwetter studied and practiced law in Germany and San Francisco, U.S.A., and holds an LL.M. degree (with distinction) from the University of Cape Town (UCT), South Africa. In February 2009, Tobias submitted his Ph.D. dissertation at UCT on copyright-related issues - with a special focus on copyright exceptions and limitations. He is a member of the UCT IP Research Unit, teaches on copyright law at UCT and supports the law faculty's digital repository 'lawspace'. In addition, he is the legal lead of Creative Commons South

Africa and a member of the Commonwealth of Learning's (COL) copyright expert group. He has been awarded with the prestigious UCT Research Fellowship Award for his doctoral studies in 2005, 2006 and 2007. Tobias is significantly involved in a number of IP-related projects, including the Open Review of the South African Copyright Act 1978 project, co-funded by the Shuttleworth Foundation, the Open Society Institute and Tralac. At present, Tobias is the country lead reseacher and one of the Principal Investigators for the African Copyright and Access to Knowledge (ACA2K) project and a legal advisor for the technology law firm Chetty Law in Johannesburg. Tobias has written numerous articles on copyright law, e.g. in the Southern African Journal of Information and Communication (SAJIC) and for iCommons in his own monthly legal column. Furthermore, he has spoken at various national as well as international conferences.

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