

Conflicting Agendas: Implications of Intellectual Property Rights on Access to Knowledge in Education and Research

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Abstract

The emergence of the liberal economic model as the dominant governance model since the 1980s saw the spread of a strong intellectual property rights (IPR) regime across the world. Exclusive monopoly rights offered by the intellectual property rights regime to inventions in the field of literary work, art and science has generated a new set of global issues in accessing knowledge and has led the way to a movement on access to knowledge to counter the restrictions of inflexible IPR regimes. In comparison to this global trend, awareness of IPR implications on access to knowledge is weak in Sri Lanka. Based on a study conducted at the Open University of Sri Lanka this papers discusses how IPR law, copyrights and patents in particular, impacts education and research at all levels.

Introduction

Contemporary society is often described as knowledge or information based. Considering the distribution of wealth and power among nations or even individuals, it is clear that those who have access to knowledge and information occupy positions of privilege and power. Thus, the question of who owns or controls knowledge is a key factor in the distribution of power.

Intellectual Property Laws are one of the principal instruments regulating the ownership and dissemination of knowledge and information in contemporary society among other instruments such as regulation by exercising economic, political and social power and regulation through technical means. Intellectual Property Regulations (IPR) as it is manifested today is a fairly modern phenomenon. IPR gives exclusive rights to the creations of the mind. Copyrights and patents for example, protect the creator by limiting public access to information and goods. The idea is that the incentive provided by such protection through competition and profits is necessary to encourage innovation.

The growing move to control the dissemination and spread of knowledge has led to a counter movement known as the Access to Knowledge (A2K) movement which sees information and knowledge as necessary for socio-economic development and therefore not to be regarded merely as a profit making tool.

This paper will examine the IP regime in Sri Lanka and discuss its implications for accessing knowledge in regard to education and research. It will examine the policy framework in relation to education and research and discuss the ways in which existing IP laws conform to or contradict national education and research policy goals. It will argue that the current status of education and research calls for an emphasis on improving access to information and building a solid knowledge base to meet the developmental needs of the country and that IP laws which stress protection rather than access to knowledge are out of step with the country's needs.

This paper is based on a study conducted by the Open University of Sri Lanka in 2009¹.

Background

Appreciation of creations is a phenomena that has existed throughout human history. The awarding of monopoly rights for a creation, however, is a comparatively recent trend with a history of a few centuries. While there were IPR laws active in a few industrially advanced countries intellectual contributions were considered public property in many parts of the world. It is in 1995, with the establishment of the World Trade Organization (WTO), that a comprehensive multilateral trade agreement on IPR was introduced. Trade Related Aspects of Intellectual Property Rights (TRIPS), one of the main agreements coming under WTO, expanded the traditional

¹ A study on "Intellectual Property Rights and Access to Knowledge Initiatives in Sri Lanka" was conducted as an inter-departmental research with the participation of the Departments of Legal Studies, Social Studies, Electrical and Computer Engineering and Mathematics and Philosophy of Engineering.

coverage of literary, scientific and artistic creations to incorporate areas such as computer software and even life forms. TRIPS establishes minimum standards for various IPR tools such as copyrights, trade marks, patents, industrial designs, geographical indications, trade secrets and integrated circuits. TRIPS is based on and supplements the Paris, Rome and Washington Conventions in their respective fields (Correa, 2000). TRIPS also requires WTO member countries to introduce local legislature or to revise existing legislature on IPR in line with minimum standards set by the global framework. By revising the law that existed so far, Sri Lanka introduced its new intellectual property rights law in 2003 through an Act of Parliament.

As mentioned earlier, IP flows from a belief that granting a monopoly for creators provides them with an incentive to be innovative. This belief is based on a particular theory of neo classical economics that states that all members of society share the same values of individualism and the pursuit of a greater share of material goals. Competition therefore is a natural state for human beings engaged in pursuing their self interested goals and satisfaction. This theory also states that human agents engage in rational economic behaviour and private property is a crucial component of this rational behaviour: unless individuals are guaranteed their rights to the profits and results of their efforts they would not be motivated to work hard and be innovative (Kabeer, 1995).

However, it can be argued that this world view which places individualism and self interest as the primary motivations behind human agency is but only one explanation of human agency. Collective goals or non material goals such as maintenance of relationships can be equally powerful motivations for human agency. Furthermore, when the pursuit of self interested goals consistently leaves less powerful groups of people or individuals worse off or not benefiting equally from such goals, then indeed the whole rationality or even ethics of such values need to be questioned. Thus, the rationality of protecting information and knowledge in a situation where access to information and knowledge may be more urgent needs to be critically viewed.

While the study on which this paper is based considered both formal and traditional knowledge systems, for the purpose of this paper, only formal knowledge systems will be considered. The formal education system, that is the primary, secondary and tertiary education system in Sri Lanka is therefore considered as the main mechanism through which knowledge is disseminated and to a certain extent generated as well. The research environment in Sri Lanka within the education sector as well as publicly funded research agencies will also be considered.

We will now turn towards the policy environment and current state of the formal education and research sector in Sri Lanka.

The Education and Research Structure

There are several cycles in the education structure in Sri Lanka: primary cycle (grades 1-5), junior secondary cycle (6-9), senior secondary (10-13), tertiary education, and technical and vocational training. Legislation in 1997 made education compulsory up to Grade 9. Entry into technical and vocational training is possible after completing Grade 9 and at Grade 11 after completing the Ordinary Level national examination. To qualify for tertiary education and training students have to successfully complete the Advanced Level national examination at Grade 13 or to be graduated from a technical institution (ADB, 2007). While the establishment of private schools up to Grade 9 have been banned, it is possible to establish private degree awarding institutions as long as they are not called universities.

The status of general research and development in Sri Lanka is considered weak even by the standards of many of the developing countries. This is surprising given its rich heritage of innovative and vibrant civilisations and also the establishment of a sophisticated research and development structure during the last century. There are 111 state institutions handling different aspects of research in various sectors. The number of state institutions comprehensively dedicated for research is 29 (Wickremasinghe, 2008).

Policy Environment

There is no lack of policy initiatives in either the education and research sectors in Sri Lanka. The education policy environment is particularly strong. The compartmentalising of policies for the purpose of analysis and writing, however, may suggest a coherence and order that does not actually exist in reality.

Education Policy

Sri Lanka is often highly regarded for its high achievements in the education sector. Successive governments invested in the public education system supporting the system with free text books, uniforms, school mid day meals and scholarship programmes. This has enabled Sri Lanka to maintain high literacy rates and near universal primary enrolment rates (this was achieved in the 1990s compared to the goal of 2015 set for most countries) more in line with educational achievements in countries with higher GDP rates. Furthermore, Sri Lanka has also been able to achieve gender equality in the education system with slightly higher enrolment rates for women in secondary and tertiary education (ADB, 2007).

A system of education was in place from pre-colonial times and even the educational policies during the colonial period were generally regarded as progressive, in that education was recognised as necessary and important. As early as in 1906, regulations making schooling compulsory were put in place; for instance the Town Schools Ordinance of 1906 and Rural Schools Ordinance in 1907 were attempts to enforce compulsory schooling and to extend the provision of education (Little, 2003).

The fundamental policy guidelines that shape the education system in Sri Lanka is the Education Ordinance of 1939. While there have been several changes and reforms since then, changes have been made in the form of amendments to the existing Ordinance or as Ministry Circulars. Additionally, there were acts such as the Education Commission Act 9 of 1991 and the National Institute Act 28 of 1985 which basically established specific institutions to implement the broader educational goals of the country. Significant reforms were also undertaken in 1981 and 1997. School attendance was made compulsory for all those between the ages of 5 and 14 years through regulations in 1997 (Wettasinghe, 2006). Connectivity to the outside world is for the first time acknowledged as important in the 1997 reforms and thus IT education was brought into the school curriculum. The National Education Commission (NEC) reviewed the reforms and made further recommendations in 2003 in a policy statement titled Envisioning Education for Human Development. Additionally, the National Plan of Action for the Children of Sri Lanka 2004-2008 has also drawn from the NEC recommendations. The Ministry of Education led Education Sector Development Framework and Programme (ESDFP) (2006-2010) supported by the World Bank also reflect the NEC policy framework. The ESDFP is organised under 4 themes:

1. Promoting equitable access to basic and secondary education
2. Improving the quality of education
3. Enhancing the economic efficiency and equity of resource allocation
4. Strengthening education governance and service delivery

The policy statement of the current President, the Mahinda Chinthana, devoted a section to national education in which improving facilities in all schools was emphasised with special mention of facilities for teaching languages, science and technology. The ten year development framework that has been developed based on the President's Manifesto, also emphasises technological skills for economic growth and national development, a focus on equity, quality, efficiency and effectiveness at all levels, to increase participation with a focus on improving facilities for disadvantaged and vulnerable groups and to increase relevance through curriculum reform, introduction of new courses as its goals in the section on education (Department of National Planning, 2006).

However, falling government revenues and increasing competition for resources especially as a result of rising defence expenditure has meant that government expenditure on education has been declining. The proportion of GDP invested in education has been below 3% between 2001 and 2007. What is also noteworthy is that the larger proportion of the education budget has been on recurrent expenditure. Thus, even when the education budget has increased this has been mainly with regard to increases in the recurrent expenditure (Aturupane, 2009).

Higher Education in Sri Lanka has received comparatively lesser policy attention. Higher Education institutions in Sri Lanka are governed by the University Grants Commission which was established in 1978 under the Universities Act No 16 of 1978. There are 15 universities as well as a number of higher education institutions in Sri Lanka. One of the most evident problems with regard to tertiary education system in Sri Lanka is that of the number of students who are eligible for admission to the university, only about 16% actually get admitted (Department of Census and Statistics, 2001). The NEC formulated a National Policy for University Education in 1996 and a Presidential Task Force was appointed to develop an implementation plan. The main action points of the Presidential Task Force were in relation to expansion of university education,

diversification on university courses and curricular reform, staff development and career guidance and resource mobilisation (Presidential Task Force Report, 1996). The lack of resources to improve the quality and relevance of courses is a serious constraint within the higher education system. However, all universities are expected to have corporate plans and to introduce programmes to improve quality and relevance of its courses.

Distance education and the use of new technology to make higher education more accessible particularly in the rural areas is gaining momentum. The ADB in particular has been interested in supporting the introduction of ICT in secondary schools and distance education for tertiary education (ADB, 2007). The Secondary Education Modernisation Programme (SEMP) initiated in 1997 and now in its second phase established computer learning centres in 1000 secondary schools. The Distance Education Modernisation Project (DEMP) started in 2003 emphasises the promotion of open and distance learning and has a particular focus on strengthening the Open University of Sri Lanka and also supports 4 universities and 3 professional institutes to prepare material for on line learning (ibid).

Research Policy

Sri Lanka, as an island located in a main shipping route and located just next to the great Indian civilisation, was always open to share knowledges, cultures and philosophies from other nations. This has contributed immensely to the advances of ancient Sri Lankan civilisations. However, this very fact of openness to outside world was a disadvantage when viewed from a national innovation point of view. Invasions by outsiders, mainly by South Indians and Europeans, resulted in collapses of evolving civilisations affecting the flow of knowledge from generation to generation. The most prominent was the era of colonisation of 350 years by Portuguese, Dutch and English from 1500 – 1948. The plantation economy that was established during the colonial times dramatically changed the entire social, economic and political landscape of the country handicapping the knowledge base available for innovation in the pre-colonial Sri Lanka. Plantation economy introduced plantation crops against food crops in mass scale and established infrastructure to strengthen the plantation economy. The colonial era can be considered to be continued even after independence in 1948 because the transition of power from English to an elite group of Sri Lankan didn't result in a breakaway from the colonial mindset. The advanced status of irrigation, agriculture, construction, architecture and town planning the country has witnessed during pre-colonial times. , as a result, has ended up as mere memories of the island nation.

Policy environment of Research and Development (R&D) is provided by a range of sectoral policies such as agriculture, education, environment and natural resources, plantation industries, energy, fisheries and aquatic resources, highways, industry and investment promotion, lands, indigenous medicine, small and medium industries, etc. The overall policy for R&D, however, is provided by the Science and Technology (S&T) policy within the context of Sri Lanka. However, although, attempts to formulate a R&D policy have been undertaken since 1960, it has yet to be adopted. Currently policy directions for R&D come from the Mahinda Chinthanaya which has 13 policy goals in relation to R&D and the proposed National Science and Technology Policy which is currently awaiting Cabinet approval with 10 policy objectives. Both frameworks propose a range of measures to address the main challenges faced by the R&D sector at the moment, namely the lack of state support for R&D (low budget allocation for R&D), lack of highly trained professional in R&D organizations, underdevelopment of higher education and the science base in universities and lack of linkages between R&D institutions, industry and business enterprises (Amaradasa & De Silva, 2001). Proposed National Science and Technology Policy adds new areas such as the sustainable use of natural resources, prioritizing research in water, food, energy and environment and in new technologies (e.g. nanotechnology, biotechnology, information and communication technology, electronics, advanced materials and mechatronics), attention on natural hazards and national security issues into the policy framework. Interestingly for the first time, the need to address IP issues is also mentioned in the proposed policy.

Current education and research status and practices

Education

As mentioned previously, the disparities between schools with regard to the quality of education they offer and the facilities that are available to the students is a major challenge for the education system. Schools in Sri Lanka are divided into different categories based on the level of education and range of subjects they offer as 1AB, IC, Type 2 and Type 3. Additionally, the Ministry of Education also categorises schools according to the availability of facilities into five levels ranging from more congenial schools to very difficult schools. This categorisation is based on the availability of basic facilities, equipment, space, sanitation, qualified teachers and

location in terms of distance to bus or railway routes. The disparities between the provinces is evident when considering the fact that more than 50% of the most congenial schools are in the Western Province whereas the North and East have only 16% more congenial schools and the North Central Province 17%. The percentage of schools under the category of very difficult is 38% in the North and East, 24% in the North Central Province and only 0.5% in the Western Province. What is even more alarming is that 24% of the more congenial schools do not have libraries and 21% do not have science laboratories. Among the very difficult schools around 80% do not have electricity (Ministry of Education, MDA Report, 2008). Of the schools offering A/L education only 26% offer science stream subjects as an option for students (Amarasuriya, 2009).

With regard to educational achievements and performance while Sri Lanka has impressive literacy rates, achievements in other areas are more worrying. Educational performances have been described as 'islands of excellence' with the best universities and schools producing students able to compete with the best in the world while average student performance is much lower than expected. For instance, primary school students have an average mastery of only 37% in the First Language (Sinhala or Tamil) and an abysmally low 10% achieving the targeted level of mastery in English. A mere 1% of children have achieved expected levels of mastery in English writing skills. Mastery in Mathematics is only 38% (World Bank, 2005). Considering that the foundation for education is laid at the primary level, these statistics are extremely worrying.

Educational achievements also reflect rural urban disparities where more than half the students have achieved mastery in Mathematics and First Language in Urban areas whereas in rural areas it is around 35%. 23% of urban children have achieved mastery in the English language whereas it is 7% of children in the rural sector. The differences are also regional with the Western province performing much better than the other regions with the North East, Central, Uva and North Central provinces lagging behind.

With regard to secondary education, examination performance at the O/L examination only about 37% have made the pass grade during the period 1998-2002. The pass rate at the Advanced Level examination during the same period has been between 50-55% (Aturupane, 2009).

The problem of unemployment among educated youth has often been blamed on the education system. While employers claim that youth do not possess the characteristics or qualifications required in the labour market, it is also evident that opportunities for students to acquire these qualifications are not freely available either.

Research

Expenditure on Research and Development (GERD) in 2004 was 0.2% according to the latest available statistics. This is in comparison to the 1% recommended for a developing country. The government contributed heavily in National Expenditure on Research and Development in 2004 with a percentage of 67.5% of the total. While foreign funding contributed 22.6% the private sector contribution was a mere 0.6%. National expenditure for R&D by discipline for the year 2004 was as follows. The highest percentage of money was spent for R&D in agricultural sciences (26.3%) and social sciences and humanities (26.3%). Expenditure for natural sciences, engineering and technology and medical sciences were 16.5%, 16.1% and 14.0%, respectively. Out of 4602, the distribution of R&D scientists in the sectors, "higher education", "state" and "private and NGOs" is 62.3%, 31.9% and 5.8%, respectively (NSF 2006). This is in comparison to the 2034 technicians work in "higher education" (30.6%), "state" (51.3%) and "private and NGO" (18.1%) sectors (NSF 2006).

Out of the the main reasons behind the weak status of R&D particularly highlighted are the brain drain of skilled professionals and researchers and the serious lack of funding allocated for R&D both in the state and the private sector. Irrespective of the impressive status of literacy and education the country has failed in the recent history to maintain a critical mass of high quality researchers in the country. The single major reason behind mass scale brain drain and lack of funding allocation is the Sri Lankan conflict. The war has absorbed a significant portion of government money. The professional and the researchers from the Tamil community have left the country as a direct consequence of the war and Sinhala and Muslim professional and researchers have left as a result of lack of career opportunities which in turn is an indirect consequence of the war.

A survey conducted as a part of the OUSL study in 5 leading research institutions in state and non-state sectors, namely, Industrial Technology Institute (ITI) Sri Lanka, National Engineering Research and Development (NERD) Centre Sri Lanka, Hector Kobbekaduwa Agrarian Research and Training Institute (HK-ARTI), National Institute of Library and Information Sciences (NILIS) of University of Colombo and Social Scientists Association (SSA) provide interesting insights into the barriers and possible incentives for a vibrant R&D sector from the researchers point of view.

Apart from the SSA the four other institutions are state sector institutions and considered to represent in general the state sector mindset of innovation. Table 1 represents the perceptions of the researchers of the five institutions on incentives required to promote a vibrant R&D culture in the field of science and technology and barriers that would restrict such a culture in order of priority.

Table 1: Researchers perceptions on incentives and barriers

Incentives	Barriers
1. Comfortable working environment for researchers (e.g. internet, library, laboratory)	1. Poor payments and working conditions for researchers
2. Supporting administrative environment within institutions	2. Inadequate allocation of funding for the R&D sector
3. Reasonably high payments for researchers and other relevant facilities such as transport, housing, etc	3. Limited access to new science and technology innovations and inventions in the rest of the world
4. Recognition for individual contributions in R&D (e.g. integration with career advancement, awards social recognition, etc)	4. Lack of strong intellectual property rights protection for inventions such as patents
5. Hope for a prosperous peaceful country in the recent future	
6. Strong patent protection for the inventor	

(Note: Researchers were asked to prioritize the given answers in accordance with the importance allocated by each individual researcher. When conducting the overall analysis highest marks were given for the first choice and the lowest for the last choice, The total sum of marks for each question was used to draw conclusions)

Improvement in working conditions, supporting administrative environment, reasonably high payments for researchers and recognition of contributions in innovation by means other than IPR protection are all prioritised as useful strategies for promoting innovation at a individual level. Particularly important is to note that the improvement in working conditions and a supportive administrative environment rates above higher salaries as incentives for a dynamic R&D culture. A sustainable solution for the Sri Lankan ethnic conflict could contribute significantly to national innovation through the reduction of defence expenditure and preparation of ground conditions to reduce brain drain and to attract those who have already left the country to come back. Finally, despite the rationale provided by the IPR regime that IPR protection would be the primary incentive for innovation, this was the least important factor identified by researchers.

Given the many challenges to the formal education and research system in Sri Lanka, it is certainly puzzling as to why establishing a strong IP protection regime becomes a priority over responding to all the other issues. For instance, basic infrastructure problems such as insufficient resources to support related costs such as electricity, maintenance of computer labs, cost of software etc have caused initiatives to promote Information and Communication Technology (ICT) to flounder. Students, teachers and researchers have complained of poor internet access (low speed as well as lack of access to computers and internet), language barriers, and restricted access to useful sites as problems that they face with regard to ICT. It is interesting to compare the costs of databases, also as an example, against the funds allocated for libraries.

Table 2: Cost of Databases

Database Vendor	Cost (Rs)
JSTOR (concessionary price for a few institutions)	0.2m
Science Direct	90m
Science Direct (for limited subject area)	15m – 30m
Blackwells Synergy	3.2m
Wilson Online	5.0m
Wiley Inter Science	6.2m
Hein Online	0.05m
EBSCO Host	13.8m

The cost of data bases which contain some of the latest research are inaccessible even to the universities due to high cost (See table 2). When we consider as an example the fact that the annual budget for the OUSL library was only Rs 1 million for 2009, the enormity of the challenges that face the education and research system in providing students, staff and researchers with up to date knowledge is clear. The OUSL study also revealed that many of the books that are recommended by the faculty to students are either not available locally and thus have to be bought at a high cost through special orders. Furthermore, resource constraints mean that the number of copies that can be obtained by the library is also limited. In such a situation, photocopying is an important less costly alternative for students and faculty both to access information. Provided below in Table 3 a sample cost comparison for five books with high demand.

Table 3: Comparison of photocopying and purchasing costs of recommended texts (sample) at OUSL.

Title	No. copies at library	Cost of Photocopying (Rs)	Local cost (Rs)	International Cost	Ratio of international cost to lowest photocopy cost**
Roman law and Common Law: A comparison, Akhurst, Michael	1	212-531*	Unavailable	£29.99	26.2
Sociology, Anthony Giddens	3	547-1368*	Unavailable	£25.99	8.8
Marx, Weber, Durkheim: Formations of modern social thought, Morrison, Ken	3	229-573*	Unavailable	£22.99	18.6
Advanced Engineering Mathematics, Dass	3	679-1697*	1350.00	Indian Rs 305.00	1.1
Theory and Problems of Statistics, Spiegel	2	269-672*	747.50	\$93.00	39.7

(* based on the cheapest and most expensive rates for photocopying and ** at Rs. 185.2 for 1£, Rs. 114.8 for 1\$ and Rs 2.43 for 1 Indian Rupee on the 6th June 2009)

The Table shows how prohibitively expensive prices added with restrictions on photocopying seriously restrict access to some of the recommended texts that are available in limited numbers at the library. For example if they are to be bought, the widely used two books on law and mathematics would be 26.2 and 39.7 times higher than the cheapest photocopy cost. What is evident is that the Sri Lankan education and research system faces many challenges not the least being providing students, faculty and researchers access to up to date research and academic information. Developing the knowledge base therefore of the country or ensuring that education is relevant and of high quality becomes seriously difficult. This inevitably has implications for the quality of research the country is able to produce. While the education policy has recognised the need to improve quality and relevance of education, including the need to improve facilities, and national research policy has recognised the need to link education and research Sri Lanka continues to be a knowledge *importing* country than a knowledge producing country. This also means therefore that the knowledge base of the country is heavily reliant on external sources to set the agenda and priorities. This is clearly not a healthy situation in terms of setting research priorities and making research relevant to the developmental needs of the country.

Intellectual Property Regime in Sri Lanka: Scope, duration and economic rights (GoSL, 2003)

Intellectual Property Rights (IPR) tools such as copyrights, patents, industrial designs and trade secrets play an important role when it comes to education and research. The influence of IPR regime is felt from the national IPR legislature as well as the international IPR mechanisms (e.g. conventions, agreements and treaties) to which

Sri Lanka is a signatory. This paper will focus mainly on the Sri Lanka IPR law on copyrights and patents in discussing the conflict between country needs in education and research and the framework of IPR.

In compliance with the minimum standards requirements of the international IPR regime the Sri Lankan Copyright Law is now been expanded to cover the entire spectrum of literary, artistic and scientific domains. The conventional list of copyrightable items such as books, musical work, photography, paintings and dramatic is now added with computer programmes, speeches and sermons, audiovisual works, works of architecture, works of applied art, illustrations, maps, plans, sketches, etc. The derivatives of the above work such as translations, adaptations, arrangements, collections of works and collections of mere data (databases) both in material and electronic form are also copyrightable. Ideas, concepts, principles, discoveries and mere data are, however, not allowed for copyrighting. The list of non-copyrightable material includes official documents and news.

The patents regime can be considered to be wider and allows patenting of any invention that is new, involves an inventive step and is industrially applicable. Patents cover new useful inventions (process, machine, manufacture, composition of matter), or any improvement of an existing invention. The list of non-patentable items include discoveries, scientific theories, mathematical methods, plants, animals, methods for treatment of humans or animal, technology of atomic weapons and inventions that impacts negatively on public order and morality.

In addition to the expanded coverage the strong protection provided as economic rights is also important for a discussion on implications of IPR on access to knowledge. The Sri Lankan copyrights regime provides economic rights to the owners of the above mentioned works for the lifetime of the author and 70 more years in addition to the conventional moral rights. The wide ranging exclusive economic rights include rights for reproduction, translation, adaptation, arrangement or other transformation, importation, public display, public performance, broadcasting and public distribution through sale, rental and export, etc. Patent law provides the owner of the patent exclusive rights to make, use, sell, offer for sale, export and import the claimed invention for a period of 20 years from the application filing date.

Flexibilities and Fair use

Flexibilities and spaces for fair use are incorporated in the international intellectual property rights regimes by considering the development requirements of the developing and the least developed countries that are challenged by the strong protection offered for intellectual innovation. The flexibilities and spaces for fair use are a result of hard fought campaigns by the developing country groups in multilateral forums of negotiations (Jawara & Kwa, 2003; Wallach & Woodall, 2004). Sri Lankan intellectual property rights law is an example of rather strange scenario of not using most of the important flexibilities and fair use measures offered in copyrights for developing countries. While some flexibility has been included with regard to patents, there is room for more flexibility given the developmental state of the country.. It is interesting to investigate why this disparity of non-using flexibilities for copyrights and using of them them for patents has happened. Literature on IPR and traditional seeds provides us with a comprehensive explanation (Gunawardena 2006, Rajepakse 2007). The draft Intellectual Property Rights Bill that was presented for public comments in 2002/03 did not, in fact, carry the incorporation of flexibilities and fair use measures for patents that appear in the current Act. It was the challenges presented by civil society groups at the Supreme Court from the angles of public health and patenting of living beings and arguments to the effect that the Bill could be considered unconstitutional on the above basis that led to the inclusion of these measures. The current status of the copyrights law, hence, poses the most significant challenge for access to knowledge in education and research. The Sri Lankan copyrights legislature can be considered to be quite strong compared to the minimum requirements expected by the international copyrights instruments as well as the copyrights law of many of the countries in the Asia-Pacific region (with reference to CI 2006 and GoSL 2003). While the Sri Lankan copyrights law does not take full use of important flexibilities and fair use measures such as “teaching exception”, “compulsory licensing” and “parallel imports” patent legislation on the other hand significantly restrict patenting of living beings and maintain flexibilities such as “compulsory licensing” and “parallel imports” thanks to the challenges posed by civil society groups as mentioned above.

IPR implications for accessing knowledge in regard to education and research

Copyrights

The reality at the moment in Sri Lanka is that the full implementation of copyright law would both make a significant percentage of the Sri Lankan population liable for prosecution leading to either fines or imprisonment or both. The unaffordable costs of proprietary software, books and CDs has resulted in a situation where accessing knowledge in education and research is dependent comprehensively on 'pirated' software and CDs and books and other copyrighted literature obtained through illegal means or by violating the law with respect to photocopying. However, there is no reason to believe that a fully implemented monopoly right regime such as copyrights and patents would lower the cost of copyrighted material.

We discuss below the implications of the strong copyright protection offered by the Sri Lankan law on access to knowledge in education and research in relation to five specific flexibilities and fair use measures that affect education and research. It should be noted that these five measures do not cover the whole range of measures available. Flexibilities offered by the international IPR regime are defined, within the context of this paper, by the Berne Convention for the Protection of Literary and Artistic Works, 1986 and the revision of it in 1971, TRIPS Agreement and World Intellectual Property Office (WIPO) Copyright Treaty (WTC), 1996. The Berne Convention, however, provides guidelines for detailed flexibilities as the convention covering copyrights in a comprehensive manner.

a. Teaching exception: By considering the adverse implications of protection on access to knowledge, certain aspects of copyrights regimes are allowed to be violated for the purpose of teaching. The Berne Convention allows the use of full copies of copyrighted work in unrestricted numbers in reproduction, translation, adaptation, communication to public, etc. While countries such as Indonesia and Philippines make full use of that facility, Sri Lanka restricts the use of the teaching exception to reproduction and communication to the public (performance and display of work) and restricts reproduction to only "a short part" of the full work (by the way of illustration, in writing or sound or visual recording). Performance and display of work is limited to government and non-profit institutions and confined to classrooms. Photocopying of a whole work is restricted even if it is for teaching purposes and photocopying is not allowed at all for distance education. This happens in a context where the Berne Convention does not differentiate between distance education and face to face teaching. As a mode of teaching that depends heavily on printed material to provide information to its student population the special prohibition of the use of photocopying for distance mode poses a severe restriction. Education institutions that serve direct or indirect commercial gains are also excluded from the teaching exception for photocopying (CI, 2006; GoSL, 2003).

b. Compulsory licensing: The Berne convention allows compulsory licensing for translations and for reproduction of copyrighted work under conditions of national importance. While countries such as Mongolia and Philippines make use of compulsory licensing for both translations and reproduction and Thailand for translations, Sri Lanka has neglected this facility. Compulsory licensing allows a country to translate or reproduce copyrighted work without the consent of the rights holder. The current Sri Lankan IPR law, in fact, had removed the facility offered in 1979 legislation to allow translation of copyrighted work into local languages if translations are not done by the owner within a ten year period. As a country that depends heavily on the limited amount of books available in Sinhala and Tamil languages for knowledge in education and research, not taking advantage from the compulsory licensing flexibility is a costly lapse (CI, 2006; GoSL, 2003).

c. Parallel imports: Parallel import is a flexibility offered to import copyrighted work through cheaper sources. National law can allow parallel imports by restricting the right of the author only to the first distribution of work. Even though many serving at higher education institutes and research institutes use this mode as a way to get quality, expensive and unavailable books for cheaper prices strict implementation of the law would close that avenue of accessing knowledge. The current law only allows importation of a single copy of a work by a physical person for his/her own personal purposes (CI, 2006; GoSL, 2003).

d. Fixation of material form: Under the Berne Convention the national law of a country can limit the scope of copyrighted work to "material form". This allows countries to define narrowly the meaning of "material form" and leave digital material out of the copyright regime. In a context where access to software is a serious issue as a result of copyrights law one would wonder why the flexibilities offered under international mechanisms were not used (CI, 2006; GoSL, 2003).

e. Anti-circumvention: Certain (technical) measures can be used to undo technological protection provided for copyrighted work and the application of these measures is called “circumvention” within the context of the Sri Lankan law. Sri Lanka has introduced strong anti-circumvention measures irrespective of the fact that Sri Lanka is not a party to WCT. This restricts Sri Lankans using circumventive measures even when legitimate access is restricted by the copyright holder through technical means. This is now the general case in the world with many of the sites where money is charged or access is restricted. Implementation of the law would affect development in open source and means of providing access to disabled². India, Kazakhstan, Mongolia, Philippines and Thailand have not incorporated circumventive provisions in copyrights legislation (CI, 2006; GoSL, 2003).

It is also important to discuss the status of library use, treatment offered for those with special needs (the visual and hearing impaired for example) and the use of software and internet.

Library use : The Sri Lankan copyright law doesn’t allow libraries even if they are run by schools, education institutions or research institutions to reproduce a few copies for its own use. Only when the single permanent copy available is lost and when such a copy is not possible to be obtained under reasonable conditions, is another library allowed to supply a reproduced copy. When considering the restrictions of money allocated for libraries in educational institutes and the size of the student population catered to within Sri Lankan educational institutions this can be considered a restriction with strong negative implications from an access to knowledge perspective. Conditions of not allowing the reproduction of whole copies and restricting photocopy facilities offered by libraries only for “private research” (when it comes to research) are also concerns. If “private research” is interpreted as research conducted by an individual or a group of individuals for their own personal benefit, the logic of excluding research from the facility that is being conducted with objectives beyond personal benefit and for the benefit of the society, is not clear. Not reserving direct and indirect provisions to access copyrighted databases for education and research purposes is another area that affects libraries in a significant way draining vast amounts of money out from the small allocation of funds. .

Prohibition of the right for photocopying for distance education impacts strongly the libraries located within distance education institutions where a large number of students have to compete for a limited number of original copies of recommended books that are either expensive or not available for sale in Sri Lanka. With its unclear status of the possibility of belonging to the category of institution that serves any direct or indirect commercial gain the Library and the whole institution of the Open University of Sri Lanka is affected negatively from this restriction on photocopying. These restrictions becomes even more puzzling when the Sri Lankan education policy is taken into consideration where promotion of distance education is identified as one of the main policy guidelines.

People with special needs : No special reservations are made in the Sri Lankan copyright law for the education and research requirements of people with special needs. This too happens within a context where catering of marginalized is one of the main objectives of the current education policy³. Equal access to all including the disabled is one of the features of Sri Lankan education policy. This is supported by the disabilities policy which advocates for an inclusive approach to education. In order to implement these policies, providing educational materials in formats that students with disabilities can access would be key. However, disability has not been considered as an exception in local copyright law

Use of software and internet : While the government policy objectives on Information and Communication Technology is ambitious, the copyright law on computer software is extremely strict compared even with the law for other copyrighted material. Computer software is excluded from the teaching exception. The strict interpretation of the Sri Lankan copyright law does not allow the use of internet at all for its users when it defines “reproduction” as making of one or more copies of a work or sound recording in any material form,

² Presentation on “Formal Education” held by the Open University of Sri Lanka on the 30th April 2009 at the workshop to present findings from the study on Intellectual Property Protection and Access to Knowledge Initiatives in Sri Lanka

³ Presentation on “Formal Education” held by the Open University of Sri Lanka on the 30th April 2009 at the workshop to present findings from the study on Intellectual Property Protection and Access to Knowledge Initiatives in Sri Lanka

including any permanent or temporary storage of a work or sound recording in electronic form and does not allow the user of reproduction of such copies⁴.

Patents

Two important provisions from an access to knowledge perspective that is offered by the patent regime is the need of disclosure of details with respect to patent that is being applied and the exception given to exploit a patent for scientific research. This in theory seems a sufficient condition to ensure the access to knowledge aspects in research and also in education. However, the unavailability of patent disclosures as a public document and the restrictions imposed by Intellectual Property Offices in obtaining patent details seriously hinder the use of ‘disclosed’ details in enhancing access to knowledge particularly for research purposes. Exclusive rights provided for the owner of the patent for 20 years for a wide range of functions make the flexibility available for research purposes less meaningful. It also makes the researcher vulnerable of infringement of the rights of patent holder if the developed product is still considered to fall within the regime of rights of the owner of the patent (Boldrin & Levine, 2008). The use of flexibilities and fair use measures by the Sri Lankan patent law such as “parallel imports” and “compulsory licensing” measures in the face of anti-competitive practices, “national emergencies”, “extreme urgencies” and for public non-commercial use seems to compensate to a certain extent adverse implications of international patent regime.

The Proposed National Science and Technology Policy, however, seems to miss the important role played by “access to knowledge” as a fundamental pre-requisite in generating capacity for innovation. Policy objective 8 of the policy targets of developing a culture of innovation and Intellectual Property and ensure the protection of IPR. IPR, according to the Policy, seems identified exclusively with patents and the fact that IPR also includes copyrights and trade secrets and copyrights and trade secrets, in return could restrict access to knowledge was not given enough thought. This lack of awareness on wide ranging implications of IPR has in fact created the situation where the National S&T Policy Objective 8 on IPR stays in conflict with several other Policy Objective of the same Policy document. Challenged in particular are the Policy Objectives to provide access and opportunities for all citizens in science education and research⁵

Conclusions

Challenges faced within the education and research sectors in Sri Lanka as discussed above are considerable. While Sri Lanka has achieved the target of providing equal access to education in the most fundamental meaning of the word, the huge disparities in the quality of education among the various establishments as well as problems in improving the overall quality and relevance of the education system to be able to produce the kind of educated citizens the country needs means that on many levels the Sri Lankan education system is in a serious state of crisis. Education and research are key areas for the development of a strong independent country that has the skilled population to make correct choices, select development priorities and choose what is appropriate for the country. The population needs to be not only technologically savvy but also possess the analytical and critical skills that are necessary to take the country forward. In order to do this there is a need for skilled personnel and appropriate facilities. Furthermore, research is needed to guide policy and ensure that it is applicable and relevant to country needs.

However, it is clear that Sri Lanka is woefully short of being able to produce the kind of educated personnel that is required or to conduct the research that is needed. That Sri Lanka has been able to achieve what she has is due to the investment made in education in the past and the dedication and skills of an older generation of educationists and researchers. Today we face a tremendous gap in leadership when it comes to these sectors. Tragically this is not because of anything in the capacity of its people but due to an education and research structure which restricts the information that is available and kind of knowledge that can be generated. Currently, Sri Lanka is highly dependant on external sources and as a result the ability and even space to consider which of the external inputs are most appropriate is limited. This has serious implications for production of knowledge in Sri Lanka.

⁴ *Ibid*

⁵ Presentation on “Innovation” held by the Open University of Sri Lanka on the 30th April 2009 at the workshop to present findings from the study on Intellectual Property Protection and Access to Knowledge Initiatives in Sri Lanka

While IPR is not primarily responsible for the state of education and research in the country, even from within an IPR regime, it would have been logical to ensure that the IPR regime that is put in place does not place further restrictions to A2K. Given that the international regime allows for flexibilities based on the development state of the country, why local policy makers decided to go beyond even developed countries in restricting the flexibilities and fair use measures especially for education and research is to go against the very principles of the Sri Lankan education system.

Clearly the priority of the country should be to strengthen access to knowledge not to restrict it. The rationale behind the local IPR regime becomes even more incomprehensible when as discussed earlier it contradicts many policy goals and objectives in national education and research. It shows that policy makers have little regard beyond their own special area of expertise to ensure that national policies are consistent and supportive of each other.

What is of immense concern is the fact that the public at large and even academics and those directly affected remain unaware of the implications of IPR. IPR is considered as a protection of inventors and the argument that IPR promotes innovation has been accepted without question. However, the more serious implications and repercussions have not become part of public or even more specialised discussion. This is an area that needs attention and pressure needs to be brought either to challenge or change existing laws to suit the needs and conditions of the country.

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