

Access to Knowledge in the Information Society

DRAFT FOR DISCUSSION

Tony Vetter and Eddan Katz

September 2007



© 2007 International Institute for Sustainable Development (IISD)

Published by the International Institute for Sustainable Development

The International Institute for Sustainable Development contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change, measurement and assessment, and natural resources management. Through the Internet, we report on international negotiations and share knowledge gained through collaborative projects with global partners, resulting in more rigorous research, capacity building in developing countries and better dialogue between North and South.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC) and Environment Canada; and from the Province of Manitoba. The institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

International Institute for Sustainable Development
161 Portage Avenue East, 6th Floor
Winnipeg, Manitoba
Canada R3B 0Y4
Tel: +1 (204) 958-7700
Fax: +1 (204) 958-7710

E-mail: info@iisd.ca
Web site: <http://www.iisd.org/>

Access to Knowledge in the Information Society

By Tony Vetter and Eddan Katz
September 2007

Table of Contents

Table of Contents	3
Introduction.....	4
The Challenges	5
Intellectual Property Rights (IPRs).....	6
IPRs and the Internet	9
Thoughts and Actions Emerging from A2K Movement.....	11
The WIPO Development Agenda.....	12
Possible New Directions Forward.....	13

DRAFT

Introduction

One of the primary drivers of the access to knowledge (A2K) movement is well represented in the following new take on a familiar proverb. “Give a man a fish and you feed him for a day. Give a man a fishing rod, and he feeds himself and his family for as long as the rod lasts. Help a man develop the knowledge and means to improve the fishing rod and to design and produce new ones, and he may feed himself and his society for years to come.”¹ This proverb illustrates the intuitive and empirically proven general fact that appropriate knowledge increases the economic efficiency of an economic actor, and is essential to the full realization of human potential in almost all contemporary conceptions of human fulfillment.² In the context of the Information Society, knowledge is a central resource in the global economy and as such access to knowledge is an increasingly crucial ingredient for economic development. In this same context the A2K movement believes even more broadly that knowledge is essential for many human activities and values, including freedom, the exercise of political power, as well as economic, social and personal development.³ These same human values featured prominently in the World Summit on the Information Society (WSIS) Declaration of Principles and so naturally the aim of the A2K movement to increase access to knowledge for all was central to the declared Common Vision of the Information Society.⁴ However at the Working Group on Internet Governance (WGIG), created by WSIS to clarify the issues of the emerging debate on Internet governance, a clash became evident between traditional intellectual property right (IPR) approaches, developmental needs, and aspirations for how internet technology could further facilitate increased access to knowledge. This reflected the fact that issues relating to IPRs have long been among the most contentious in the Internet governance debate and as such, discussion of A2K and IPRs issues featured prominently at the first Internet Governance Forum (IGF) meeting in Athens, Greece.

To further this discussion this essay explores the issue of access to knowledge; why it is fundamental for the Information Society, how internet technologies can enable increasing access, and the challenges that exist to realizing this potential. The most prominent of these challenges are the barriers to A2K created by IPRs. What are IPRs, how and why they came into being, the history of their effectiveness, and how they are governed are important questions this essay will address. The answers to these questions help set the stage for the subsequent examination of the problems created by IPRs for using internet technology, how in some cases IPRs have been rendered dysfunctional by these technologies, and the lines of thought and action that have emerged in response. The essay will conclude with an examination of the emergence of the WIPO development agenda, and possible new directions forward.

¹ Cynthia Cannady, “Technology Transfer and Development”, WIPO Magazine Issue 5/2006, http://www.wipo.int/wipo_magazine/en/2006/05/article_0005.html (accessed Sept 5, 2007).

² Andrew Rens, “Access to Knowledge Too – The Yale A2K2 Report”, iCommons Lab Report, April/May 2007, <http://icommons.org/wp-content/uploads/2007/05/iCommons%20Lab%20Report%20April:May.pdf> (accessed Sept 6, 2007).

³ Access to Knowledge, Overview, <http://www.cptech.org/a2k/> (accessed Sept 5, 2007).

⁴ See §B3, “Access to information and knowledge” WSIS Declaration of Principles, Document WSIS-03/GENEVA/DOC/4-E, 12 December 2003, <http://www.itu.int/wsis/docs/geneva/official/dop.html> (accessed Sep 5, 2007).

The Challenges

When considering the issue of access to knowledge it is important to first establish why access to knowledge is fundamental to the widely held vision of the information society. The belief of the A2K movement expressed in the introduction, that knowledge is essential for many human activities and values, is based on the concept that access to knowledge is a fundamental human right. Article 19 of the Universal Declaration of Human Rights states that everyone has the right to freedom of opinion and expression and the right to seek, receive and impart information and ideas, through any media and regardless of frontiers.⁵ Respect for these rights is evident throughout the WSIS Declaration of Principles. Article 8 recognizes that “education, knowledge, information and communication are at the core of human progress, endeavour and well-being.”⁶ Further, article 24 states that the “ability for all to access and contribute information, ideas and knowledge is essential in an inclusive Information Society.”⁷ New information and communication technologies have facilitated the formation of the Information Society by enabling these rights to be enjoyed by an exponentially increasing number of individuals through the proliferation of universal and inexpensive ways of accessing and disseminating information unprecedented in human history. The sustainability of the significant economic growth taking place as a result, along with the new political and cultural activities central to the Information Society, depends on respect of these fundamental rights. Unfortunately significant barriers stand in the way for much of humanity from benefiting from the immense opportunities that new information and communication technologies made possible for individuals to participate in the Information Society. These barriers effectively deny people the opportunity to enjoy these fundamental rights, whether it be a result of inadequate infrastructure, affordability of access, content in local languages, lack of education and skills, or through proprietary control over information and knowledge.

For example, scientific data and findings are the fundamental building blocks of scientific research and restricting access to this information frustrates progress of science systematically. In many countries, the financial resources that made the scientific research possible in the first place are the government and its agencies, which is the public’s money. But the current structure for the distribution of this vital information constructs high financial barriers of access for even the experts in academic and research institutions for organized collections of basic information such as medical publications and scientific datasets. The interacting system of publishing norms and copyright laws end up locking scientific data behind expensive subscription fees that are out of the reach of all but a handful of wealthy research universities and institutes in the developed world. According to a recent survey conducted by the World Health Organization (WHO), in the 75 countries with an annual GNP per capita of less than US\$1,000, some 56 per cent of medical institutions had no subscriptions to journals over the previous five years; in countries with a

⁵ Universal Declaration of Human Rights, 10 December 1948, <http://www.un.org/Overview/rights.html> (accessed Sept 6, 2007).

⁶ WSIS Declaration of Principles, 12 Dec 2003, <http://www.itu.int/wsisis/docs/geneva/official/dop.html> (accessed Sept 7, 2007).

⁷ *ibid.*

GNP between US\$1,000 and US\$3,000, 34 per cent had no subscriptions and a further 34 per cent had an average of two subscriptions per year.⁸ It is barriers such as this that the Open Access movement, a key part of the A2K coalition has made great strides in breaking down with repositories based on norms of sharing scientific data that make access to knowledge possible.

The A2K movement, which emerged in 2004 as a broad coalition of interest groups, has found common cause with a broad range of groups working on issues like that mentioned above. Such groups include AIDS activists working on Access to Medicines, computer programmers working on open source projects, college students frustrated with copyright law coalescing around the notion of Free Culture, librarians promoting access to information, farmers' rights advocates in developing countries protesting seed patents, and others still. This diverse set of transnational activists, scholars, policymakers, and private sector innovators have converged upon a unique identity in a collective critique of proprietization and control over information in the prominent industries of the knowledge economy. Some barriers to access to knowledge have their origins in proprietization and control of the infrastructure supporting the knowledge economy as well. As Internet infrastructure has grown largely in the private sector, there are many examples of the ways in which ownership of technology that becomes a key part of the system is exploited as a business opportunity. Control over that piece of the infrastructure clogs the flow of information and excludes those without the monetary resources or technical skills to plug in. From the perspective of Internet governance, the impact of such ownership and control must inform the kind of governance structures that are established. Though intellectual property has been largely relegated to side conversation in the Internet Governance Forum and other WSIS follow-up activities, perhaps due to fear of irreconcilable controversy, there are areas of opportunity for internet governance to promote more access to knowledge.

Intellectual Property Rights (IPRs)

Intellectual Property Rights (IPRs), very broadly, are rights granted to creators and owners of works that are results of human intellectual creativity.⁹ The objective of IPRs, generally accepted by those debating their necessity and effectiveness, is that they are meant to achieve a balance between the need to protect the rights of creators and owners and the benefits derived from allowing the general public to access and make creative use of their work. The two sides of the debate regarding whether this balance has been achieved or is maintained can be characterized as opposing those who see IPRs principally as economic or commercial rights versus those who see them principally as political or human rights. For example, the Commission on Intellectual Property Rights expressed the view that there are no circumstances in which the most fundamental human rights should be subordinated to the

⁸ Leslie Chan, Barbara Kirsop and Subbiah Arunachalam, *Open Access Archiving: the fast track to building research capacity in developing countries*, Science and Development Network, November 2005, http://www.scidev.net/open_access/files/Open%20Access%20Archiving.pdf (accessed Sept 10, 2007).

⁹ "Intellectual Property Rights Overview", JISC Legal, 24 March 2006, <http://www.jisclegal.ac.uk/ipr/IntellectualProperty.htm> (accessed Sept 7, 2007).

requirements of IP protection.¹⁰ The commission report makes the distinction that IP rights are granted by states for limited times (at least in the case of patents and copyrights) whereas human rights are inalienable and universal. Those arguing for IPRs on the basis of economic or commercial rights make the point that many creative works and ideas that take considerable effort, ingenuity and research, in order to come into being can be easily copied. Therefore creators and owners of works and ideas need the protection of IPRs to create sufficient financial incentives to motivate them to make the necessary investments to bring the benefits of their works and ideas to society; otherwise the market would fail to deliver the benefits from such innovation. Specifically, patent laws in most countries confer twenty years of market exclusiveness to their holders. Anyone wishing to put the knowledge on which the patent is based to potential commercial use can only do so with the authorization of, and typically requested financial compensation to, the patentee. Copyright protects works for much longer than patents but does not protect against independent derivation of the work in question.¹¹ The typical term for copyright protection is fifty to seventy years after the death of the author.

In the context of the debate regarding the rights of creators and owners versus the general public it is interesting to consider the history of IPRs. The Commission on Intellectual Property Rights noted that the issue of intellectual property has historically been politically contentious. Some have argued that this is because governments have demonstrated a track record of using forms of IPRs to grant monopoly privilege and enact censorship when it suits their political needs since their origins in mediaeval times.¹² The mainstream debate however has focused on whether IPRs were a blight on free trade principles or the best practical means of stimulating inventions.¹³ Those concerned with the distribution of gains between developed and developing countries however have tended to focus more on the inequalities perpetuated by intellectual property protection, which is to benefit financially those who have knowledge and inventive power, and to increase the cost of access to those without.¹⁴ They point out that the local innovation systems in most developing countries are weak in comparison to those in developed countries. As a result there is little innovation potential in developing countries for strict IP regimes to release through the economic incentives they are meant to foster. In fact weak IP regimes have been historically used by countries to work to further what they perceive as their own economic interests.¹⁵ The Commission on Intellectual Property Rights observed that countries have historically changed their regimes at different stages of economic development as that perception (and their economic status) has changed. For example many now developed countries had policies in the 19th Century which at times exempted various kinds of inventions from patent protect in order to encourage free access to foreign technology. Many East Asian countries

¹⁰ Report of the Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy*, London September 2002, http://www.iprcommission.org/papers/text/final_report/reporthtmfinal.htm (accessed Sept 11, 2007).

¹¹ *ibid*

¹² Markus Krummenacker, *Are "Intellectual Property Rights" Justified?*, <http://www.n-a-n-o.com/ipr/extro2/extro2mk.html> (accessed Sept 7, 2007).

¹³ Report of the Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy*, London September 2002, http://www.iprcommission.org/papers/text/final_report/reporthtmfinal.htm (accessed Sept 11, 2007).

¹⁴ *ibid*

¹⁵ *ibid*

such as Taiwan and Korea used similar policies during the '60s and '70s leveraging the benefits of imitation and reverse engineering to transform their economies.

In contrast to these unilateral policies there have also been international efforts since the late 19th Century to promote the protection of intellectual property throughout the world. In 1883, 11 countries signed the Paris Convention for the Protection of Industrial Property. The Berne Convention for the Protection of Literary and Artistic Works followed shortly after in 1886. Later, BIRPI (Bureaux Internationaux Réunis pour la Protection de la Propriété Intellectuelle, French acronym for United International Bureau for the Protection of Intellectual Property) was set up in 1893 to administer the Berne and Paris Conventions. This was restructured and reconstituted as the UN agency World Intellectual Property Organization (WIPO) in 1974. However throughout this time period these Conventions still afforded considerable flexibility to countries allowing them to exclude fields of technology from protection and to determine the length of protection afforded under patents.¹⁶ This flexibility was to be challenged in the early 1980s by a strategic alliance of multi-national corporations who successfully put intellectual property on the international trade agenda. This private sector mobilization process began with efforts to influence US trade policy by agri-biotech and pharmaceutical companies such as Monsanto and Pfizer joining forces with the International Anti-Counterfeiting Coalition (protecting trademarks in luxury goods) and the Copyright Alliance (composed of entertainment and publishing companies). These US-based multi-national corporations lobbied the US Trade Representative (USTR) to negotiate increased intellectual property protection and enforcement in bilateral negotiations with US trade partners. In a period when the US trade deficit was growing, especially in manufacturing industries, this alliance was successful in convincing trade negotiators that greater IP protection abroad would provide the best means of remaining competitive in the global marketplace. Intellectual property, which had hitherto been mostly confined to the technical experts at the Copyright Office in the Library of Congress and the US Patent and Trademark Office in terms of policymaking, had become a priority issue for US trade policy. Utilizing section 301 of the US Trade Act, which enables the US government to withdraw trade benefits and impose tariffs on goods, the USTR had an important enforcement tool to pressure governments into maximizing their intellectual property laws.

The push for increased intellectual property rights around the world concentrated on the World Trade Organization (WTO) round of trade negotiations culminating in the signing of the Agreement on Trade-Related Aspects of Intellectual property (TRIPS) in 1994. The TRIPS agreement, whose provisions were rooted in the policy agenda of the multi-national corporation alliance's policy agendas, aimed to harmonize intellectual property law globally by setting minimum standards for protection by which all WTO member states have to abide. Enforced by a dispute resolution process to adjudicate claimed violations of its provisions, the TRIPS agreement covers a wide range of intellectual property protection from patents, copyright, and trademarks to geographical indications, protection for undisclosed information, and database rights. With WTO backing of these enforcement mechanisms TRIPS became the developed countries' choice vehicle for the globalization of IP protection, and some would argue that WIPO's influence has thereby diminished.. Critics of the TRIPS agreement point out that its increased standards for intellectual property have almost exclusively favoured corporations from industrialized economies.

¹⁶ *ibid.*, 170.

IPRs and the Internet

Over the past few decades the global drive for increased standards for intellectual property has collided with the Internet. The technologies that give rise to the Internet have enabled unauthorized creation of unlimited, perfect and costless copies of protected works, as well as their almost instantaneous and worldwide distribution.¹⁷ In the realm of copyright protection, rightsholders are increasingly turning to technological protection measures (TPMs), such as passwords and encryption, as a means of exercising and enforcing their rights. Another form of TPMs, Digital Rights Management (DRM) is the collective term for the technological restrictions systems increasingly embedded in digital products. The best known product with DRM embedded in it is the DVD, which contains specific code that only allows its content to be accessed by a player (i.e., DVD player, computer, mobile phone) that recognizes the DRM and its restriction systems. DRM has come under much criticism among copyright policy and consumer protection advocates because of the limited scope of the permissions enabled in today's DRM systems. The policies automatically enforced by the DRM system fall short of what copyright law would allow, for example by preventing the archiving of a back-up copy of a digital file in case of loss or damage.

Such technological protection measures have the effect of handing control over access, and use of digital content, to rightsholders. This is representative of an alarming trend noted by the WSIS Civil Society Plenary that information and knowledge are increasingly being transformed into private resources which can be controlled, sold and bought, as if they were simple commodities and not the founding elements of social organization and development.¹⁸ For example, while the ability to reproduce educational materials key to the teaching and learning process becomes more easily available, the enforcement of copyright law has grown stricter and digital rights management (DRM) systems are increasingly embedded in digital textbooks to automate even harsher restrictions than copyright demands. In the development context it is feared that such restrictions will not only prevent donations from overseas but, more importantly, also block the widespread pattern of sharing and re-using books and similar resources in poor and least developed countries.¹⁹ Though there are provisions in international agreements on copyright that allow for flexibilities to be adopted in national law to specifically enable education and dissemination of knowledge, these exceptions and limitations are generally made into law in their narrowest sense. International treaty obligations leave the inclusion of exceptions and limitations fraught with vagueness and uncertainty as to what constitutes compliance. The A2K coalition, and more specifically civil society representatives such as library associations, advocates of disability rights, and distance educators, are pushing for the adoption of a legal instrument that would

¹⁷ *ibid.*, 108.

¹⁸ "Shaping Information Societies for Human Needs", WSIS Civil Society Plenary, Geneva, 8 December 2003, <http://www.itu.int/wsis/docs/geneva/civil-society-declaration.pdf> (accessed Sept 11, 2007).

¹⁹ Alan Story, "Study on Intellectual Property Rights, the Internet, and Copyright", Study Paper 5, Commission on Intellectual Property Rights, http://www.iprcommission.org/papers/pdfs/study_papers/sp5_story_study.pdf (accessed Sept 11, 2007).

bring more clarity to the rules and standards for exceptions and limitations to copyright. Bringing the issues to the attention of international policymakers will encourage governments to adopt intellectual property legislation that is more aligned with each country's stage of economic development and ease the burden of reliance on importation and translation of educational materials to promote education.

The application of patents to internet technologies, specifically software, is also an area of concern for the A2K coalition. Computer software came under the protection of copyright during the 1980s. Under the WIPO Copyright Treaty and TRIPs, computer programs must be protected by national copyright legislation. Some critics point out that before the 1980s the software industry grew wildly on its own without patent protection. However as it became easier to copy and distribute software IP protection advocates won the right to patent software. The frustration now expressed by A2K advocates is that although the Internet has now reduced the practical cost of distributing and sharing software to zero, people can't use that knowledge to create their own software. Critics argue that the impact on software innovation has been to clog the development of new and improved products in a thicket of exclusive rights for the different component pieces of these complex systems.

The emergence of internet technologies has also created challenges for the enforcement of IPRs in many cases through the profound affect they have had on how we produce, disseminate and consume information globally. In the realm of policy-making the speed with which internet technologies are developing challenges the traditional approach of organizations such as WIPO. Even the fast-tracked WIPO Internet Treaties, WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT), took six years to negotiate, and six years to come into force with the required 30 ratifications or accessions by States.²⁰ To adapt the WIPO has been forced to explore alternative ways of addressing the need for new IP policy and solutions in the Information Society. For example the WIPO had very little time to propose a strategy for resolving the issue of cybersquatting, the unauthorized registration or use of trademarks as Internet domain names or other identifiers of online locations²¹ typically with the intent of selling them back to the trade mark owner at an inflated price (e.g., registering <http://www.coca-cola.com> with the intent of selling it back to Coca-Cola). The Uniform Domain Name Dispute Resolution Procedure (UDRP) was adopted by the Internet Corporation of Assigned Names and Numbers (ICANN), based on soft law recommendations from WIPO following an open and transparent international consultation process, conducted both online and at publicly-reported regional meetings.²² At the national policy-making level legislators have had to come to grips with the inherently international character of the Internet, along with its potential for anonymous operation. For a right-holder to seek compensation for an IPR infringement they must be able to identify the alleged infringer. In the case of infringements occurring over the internet, service providers are often in sole possession of information that

²⁰ Online Forum on Intellectual Property in the Information Society : Weblog, *Theme Seven: How is intellectual property policy made for the information society: and who makes it?*, http://www.wipo.int/roller/comments/ipisforum/Weblog/theme_seven_how_is_intellectual (accessed Sept 12, 2007).

²¹ Anticybersquatting Consumer Protection Act, <http://thomas.loc.gov/cgi-bin/query/z?c106:S.1255.IS>=(accessed Sept 7, 2007).

²² Online Forum on Intellectual Property in the Information Society : Weblog, *Theme Seven: How is intellectual property policy made for the information society: and who makes it?*.

can identify the infringer. This has forced national legislators to attempt to strike a balance between the protection of confidentiality of information sources versus IPRs. As well suing for the infringement of IP-protected material as a result of its use over the Internet often involves cross-territorial action. This kind of legal challenge is not new. However the virtual nature of the Internet has forced legislators to rethink many complex issues of private international law and procedure.

Thoughts and Actions Emerging from A2K Movement

The A2K movement has not only challenged IP treaties and laws in the policy arena to attempt to achieve its goal, it has also encouraged open source licensing models of development in software, scientific research, and biological data, to capitalize on the new methods of innovation enabled in the information age. One such open source model is that of “open access”. The intent of “open” is to make literature freely available on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself.²³ This model only asks that users of this literature maintain the authors’ control over the integrity of their work and respect their right to be properly acknowledged and cited. To make this possible an open server is made publicly available on the internet so that researchers can self archive their works. These works can then be published in open access journals which will not charge subscription or access fees, and will not invoke copyright to restrict access to and use of the material they publish. Instead they will use copyright and other tools to ensure permanent open access to all the articles they publish. The financial support for these “open access” servers and journals typically comes from foundations and government agencies that fund research, universities and laboratories that employ researchers, and endowments set up to support specific disciplines or institutions. The resources necessary to establish these services are more likely to exist in developed countries. However the academic communities in poorer countries can take advantage of servers anywhere in the world offering OAI services, without the need to set up their own independent servers or maintain them.²⁴ Despite growing evidence that citation and the impact of papers that are openly accessible are far greater than non-open access publications, critics have voiced many concerns. They include the limited financial resources for maintaining these operations, concerns about the sustainability of operations that depend on volunteer resources, Internet accessibility, concerns about potential unauthorized uses of material published online, and language concerns.

Another such open source model is that advocated for by the American charitable organization, Creative Commons. In 2002 Creative Commons launched a set of copyright licenses covering the full spectrum of possibilities between full copyright—all rights reserved—and the public domain—no rights reserved.²⁵ Offered free of charge, their licenses allow people to customize their copyright protection while inviting certain uses of

²³ Budapest Open Access Initiative, <http://www.soros.org/openaccess/read.shtml> (accessed Sept 12, 2007).

²⁴ Chan, Leslie and Kirsop, Barbara (2001) *Open Archiving Opportunities for Developing Countries : towards equitable distribution of global knowledge*. Ariadne(30), <http://eprints.rclis.org/archive/00002609/> (accessed Sept 12, 2007).

²⁵ Learn More - Creative Commons, <http://creativecommons.org/learnmore> (accessed Sept 12, 2007).

their work. Some critics have reservations regarding Creative Commons, in that by reducing the cost of licensing, it makes licensing more accessible to individual users, thereby strengthening the hold of copyright in our everyday life.

The final open source model described here is one that has become internationally recognized through prominent examples such as Linux, that being free and open source software (FOSS). FOSS developers make their source code freely available for anyone to distribute, copy, and modify. This makes modifying a computer program, making a new version of it, or using bits of it in other programs, much easier. The philosophy of the FOSS movement is summarized by Christopher May where he notes, “The free software approach is a politicized critique of software ownership based on its utility; software should not be owned because like language, it is foundational to the society that uses it.”²⁶ In the development context there has been concern that IPRs might impede localization efforts necessary to adapt proprietary software to local language and cultural orientations. Plus given the monopoly rights enjoyed by the patent holders of proprietary software, their pricing is often out of the reach of resource constrained organizations in developing countries. As such, the Commission on Intellectual Property Rights has recommended that developing countries consider low-cost and open-source software in their software procurement processes.²⁷ However critics have raised a number of concerns including the compatibility issues that Linux users are encountering with business partners’ standards. Empirical evidence suggests that because of their lower bargaining powers, firms from developing countries are forced to comply with the technologies used by their trading partners in advanced countries.²⁸ Some also argue that FOSS software is often less user-friendly than proprietary software, and less responsive to consumer needs. As well, software patents present a particular danger to FOSS initiatives; a FOSS programmer or user could unknowingly infringe on a software patent in a FOSS program. This has forced the adoption of “terminator clauses” to prevent patentees from placing non-FOSS compatible restrictions on the use of a FOSS program.²⁹

The WIPO Development Agenda

WIPO serves a key function in propagating the implementation of treaties such as TRIPs by providing developing countries with “technical assistance” to bring their laws into compliance with international standards. As intellectual property has emerged as the legal regime most immediately governing the information economy, the technical expertise propagated by WIPO is at the crux of establishing global policies impacting access to knowledge. Having gained a reputation during the 1990s for primarily serving the interests of multi-national corporations benefiting from strict intellectual property protection, the

²⁶ Christopher May (2006) Escaping the TRIPs' Trap: The Political Economy of Free and Open Source Software in Africa, *Political Studies* Vol. 54 Issue 1 Page 123.

²⁷ Report of the Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy*, London September 2002, http://www.iprcommission.org/papers/text/final_report/reporthtmfinal.htm (accessed Sept 11, 2007).

²⁸ Nir Kshetri (2004) Economics of Linux Adoption in Developing Countries, *IEEE Software*, Vol. 21, No. 1, pp. 74-81, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=847185 (accessed Sept 12, 2007).

²⁹ Mikko Valimäki (2004) A Practical Approach to the Problem of Open Source and Software Patents, *European Intellectual Property Review* 26, 5, http://www.valimaki.com/org/os_patents.pdf (accessed Sept 12, 2007).

mission of WIPO had begun to be questioned. Its mandate, as set out in its founding 1967 document, is “to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization.”

At WIPO’s General Assembly in 2004, Argentina and Brazil introduced a proposal for the “Establishment of a Development Agenda for WIPO.” Referring to the great “knowledge gap” and “digital divide” that pervades many parts of the world, the Friends of Development (FOD), a group of 12 countries, insisted on attention to the “development dimension” in the promulgation of intellectual property law. The declaration criticized the stated mission of the organization as promoting intellectual property as an end in itself, rather than purposes such as the progress of science, enabling innovation, and encouraging creativity. They also criticized the push for harmonization of global intellectual property standards as inconsistent with the notion of law tailored to fit countries in different stages of development. They pointed out that WIPO’s technical assistance generally did not include guidance on taking advantage of the flexibilities within TRIPs and other binding agreements.

In the third meeting of the Provisional Committee on the Development Agenda (PCDA), February 19–23, 2007, a first set of proposals was agreed upon. The proposals were separated into five clusters of focus: (A) Technical Assistance and Capacity Building; (B) Norm-Setting, Flexibilities, Public Policy and Public Domain; (C) Technological Transfer, Information and Communication Technologies (ICTs), and Access to Knowledge; (D) Assessment, Evaluation, and Impact Studies; and (E) Institutional Matters Including Mandate and Governance. Collectively, the proposals agreed upon so far indicate a firm commitment to reform the orientation of WIPO to include the “development dimension.” Ranging from a pronouncement for preservation of the public domain to a call for assessment studies of the economic, social and cultural impact of intellectual property on developing countries, these proposals comprehensively challenge seeing WIPO’s narrow mission as solely promoting intellectual property. The impact of the adoption of these proposals on particular intellectual property policy remains to be seen, but the momentum towards a more balanced intellectual property policy is now in full swing. The A2K coalition and Internet governance bodies such as the Internet Governance Forum and ICANN should take the paradigm shift of intellectual property policy currently underway at WIPO as a signal for the framing of policy issues.

Possible New Directions Forward

In addition to the open access and WIPO reform activities discussed in previous sections, governance of information technology standards-setting and best practices for Digital Rights Management (DRM) permission systems are two specific areas of opportunity to minimize the negative effects of intellectual property in the core information infrastructures that underlie the information society.

Standards-setting plays a central governance role in the information society by serving as the bridge that makes interoperability of separately created technology possible. The A2K issue with technical standards arises when a company that takes part in a standards-setting process

owns patents on aspects of the standard that would require the payment of licensing fees on any technology built on it. The licensing fees can be waived and they can be based on a reasonable and non-discriminatory (RAND) fee, but there is little structured safeguards to keep a company from exploiting their patent in the standard. Sometimes they do this without revealing their patents during the standards-setting process and sometimes its accomplished by disclosing the patents, but in a setting dominated by friendly interests. Internet governance bodies have an opportunity to minimize this practice by setting up a system of accreditation for standards-setting bodies with best practice policies. These best practices can include a requirement to disclose patents, encourage the waiver of licensing fees, or at least provide some measure of what constitutes RAND pricing.

Regarding Digital Rights Management, the A2K issue that arises in relation to Internet governance concerns the network effects and technological mandates that are required to enable the information environment to read and abide by the DRM rules, not just in information appliances but in communication networks as well. The control over DRM in the digital media file extends most obviously into all the machines that could play back the movie or music or other kind of media. Controversies over broadcast industry initiatives such as the Broadcast Flag for digital television in the US or the Broadcast Treaty proposed at WIPO suggest that the demand for security and protection of media files against the possibility of piracy can seep even deeper into the core of our information environment. By mandating the signal to contain DRM, the networks through which it travels and all the electronics devices that could read it must be re-architected in order to abide by the DRM in the media file. The A2K coalition connected to the Internet Governance regime could call for best practices of DRM systems to promote more options to consumers and facilitates more permissions than rule-based restrictions.

In the short term, a focus on standards-setting processes and digital rights management systems offers the best opportunity to promote policies that improve access to knowledge. The A2K movement should take advantage of the multi-stakeholder nature of new Internet governance bodies to bring together the governments, companies and civil society that are aligned on these issues.