

University of Ottawa

From the Selected Works of Jeremy de Beer

2013

Open Minds: Lessons on Intellectual Property, Innovation and Development from Nigeria

Jeremy de Beer, *University of Ottawa*
Chidi Oguamanam, *University of Ottawa*



SELECTEDWORKS™

Available at: <http://works.bepress.com/jeremydebeer/18/>

10 Open Minds: Lessons from Nigeria on Intellectual Property, Innovation, and Development

Jeremy de Beer and Chidi Oguamanam

General understanding of the relationship between intellectual property rights (IPRs) and development has changed significantly in recent years. For decades international intellectual property (IP) discourse has been influenced by the belief that development requires strong IP protection and that IP protection invariably causes development. IP is, in the words of a former World Intellectual Property Organization (WIPO) director general, “a power tool for economic growth.”¹ The simplistic impression that more IP protection necessarily drives development was one putative reason that international minimum standards were regularly ratcheted up throughout the twentieth century. Developed countries, with the help of key private sector and international organizations, have in various ways pressed upon developing countries the idea that strong systems of IP protection are always good for development, and stronger systems are even better.²

With the World Trade Organization’s (WTO) Agreement on Trade Related Aspects of Intellectual Property (TRIPs); the WIPO Internet treaties on copyrights, performances, and phonograms; and a host of other bilateral and multilateral agreements international standards of IP protection rose to unprecedented levels. These standards apply homogeneously to countries at very different levels of development, regardless of their varying economic, social, and cultural circumstances. A few concessions do exist in terms of the substance and timing of obligations for developing and least-developed countries, but the normative principles animating the last century’s international IP laws are presumed to apply globally.

As standards rose, it became apparent that efforts to harmonize IP in domestic legislation could not, alone, yield the results that advocates of stronger protection wanted. Research confirms that, especially in developing countries, there is often a wide gulf between IP laws on the books and day-to-day realities.³ Effective enforcement requires adequate education about the new laws being enacted.

The TRIPs Agreement in particular, and the legal changes it imposed, created a significant demand for IP education and training in developing countries. In 1996, the WTO and WIPO signed a technical cooperation agreement that gave WIPO a key role in providing technical assistance to developing countries in relation to TRIPs implementation, including IP training and capacity building.⁴ That reinforced WIPO's central role in international IP training and education, which actually flowed from its original mandate, established in 1967: "to promote the protection of intellectual property throughout the world."⁵ Promoting intellectual property protection meant, in part, educating others about the virtues and details of such protection.

IP education was advocated for more than just technical training. It was necessary to promote and instill in the local culture the value of IP's underlying principles. Government officials, private sector businesses, and the general public in many developing countries needed to be convinced that enacting and enforcing strong IP laws would lead to development and particularly economic growth. The motives of IP trainers and educators were not necessarily nefarious. Programming initiatives were driven by the genuine belief that an IP regime modeled on the leading systems of Europe, North America, and Japan was invariably beneficial for global economic development and should be emulated by developing countries.⁶

Ironically, the successful push for a stronger international IP regime has helped raise awareness of its potentially adverse consequences. Boyle noted that the resulting one-size-fits-all, extra large, global IP paradigm has been widely criticized.⁷ A serious backlash has since occurred, even within the developed countries, with some economists suggesting that in some contexts the whole IP system should be completely overhauled.

In this polarized context there is an emerging middle ground. Commissions of respected experts have objectively assessed IP/development linkages.⁸ Economic data and analyses of the roles IP does and does not play in development are beginning to appear.⁹ There are a growing number of books and other scholarly materials investigating this topic, and especially recently, the promising opportunities for international institutions in reshaping a more development-friendly knowledge governance system.¹⁰ Civil society and academics have begun to work more closely with policy think tanks, intergovernmental agencies, and representatives of developing countries, nurturing the impetus for progressive change. A shared normative critique of IP, rejecting both maximalist and abolitionist extremes in favor of a more moderate and nuanced position, has begun to emerge under the umbrella of "access to knowledge."¹¹

The effect of much IP training and capacity building in developing countries is, however, that minds have become more closed rather than more open to a range of different views about the relationship between IP, innovation, and development. Open-mindedness about IP is arguably a prerequisite to, or perhaps a fundamental part of, openness generally and openness in development in particular. Indeed, the contestation and constructive ambiguities inherent in terms such as *openness*, *accessibility*, and *inclusiveness* (compare Kapczynski and Krikorian 2010 with Chesbrough 2005)¹² require flexibility in operationalizing such concepts. But being open-minded is not the same as being agnostic. It is simply sensitive to the promise of autonomous rather than engineered development and respectful of different societies' rights to determine their own best paths toward development in a globalized world. An important part of openness is, therefore, understanding and respecting the diversity of views and approaches that emerge from being differently situated, and that is what is meant by open-mindedness in this context.

Building capacity for autonomous development requires, among other things, education. As Kempe Roland Hope observes: "Without supportive strategies, policies, laws and procedures, well-functioning organizations, *and educated and skilled people* [emphasis added], developing countries lack the foundation needed to plan, implement and review their national and local development strategies."¹³ The IP education system presently in place in many developing countries is rather strongly reinforcing a particular path, while foreclosing alternative perspectives, possibilities, and scenarios for the future. A more open IP system, then, rests on a normative framework that embraces uncertainty, and incorporates or allows space for more diverse views. This is desirable because it allows people the possibility (or perhaps even empowers them) to develop the best system to suit their local circumstances.

A more robust and nuanced understanding of the role IP really plays in society is, in turn, a prerequisite to creating IP systems that drive innovation, economic growth, *and* human freedom. A holistic appreciation of not just laws and policies, but also practices related to IP and innovation will help developing countries design appropriate, context-specific systems of knowledge governance.

To this end, this chapter offers an analysis of WIPO's key role in IP training and education in developing countries, a country-specific case study of the Nigerian experience, and some strategic recommendations for creating a more open-minded IP education system. It argues that, despite some criticism, IP training and education programs offered by WIPO and partners

such as the Nigerian Copyright Commission (NCC) are extremely effective in achieving their objectives. If these objectives can be aligned with the principles underpinning WIPO's recently adopted Development Agenda, developing countries could benefit from a richer understanding of the nuanced ways in which IP systems can be creatively designed and exploited to facilitate human development.

Part I: WIPO's Key Role in IP Education

IP training and education occurs in many settings, depending on the target audience and specific objectives for the particular initiative. Because developing-country participants exposed to international IP training and educational activities come from diverse backgrounds and have diverse goals, there are a wide variety of ways in which they may be exposed to the topic. One is through initiatives established by international or regional organizations, including WIPO, African Regional Intellectual Property Office (ARIPO), and similar organizations like the Organisation Africaine de la Propriété Intellectuelle (OAPI). Another is through national IP offices, often in collaboration with foreign government departments or entities. Rights-holders, industry associations and, less frequently, nongovernmental organizations may also organize formal training and education programs for particular stakeholder groups or the public. Finally, substantial training and education takes place in postsecondary institutions including universities and colleges.

Given the diversity of participants and objectives, it should not be surprising that training and education activities can also take many different forms. Events range from intensive training seminars structured over part of one day or several days through to months-long courses or years-long programs of formal study. They may be designed by national or international institutions, independent consultants, or university professors, and delivered by a wide variety of instructors or instructor teams.

In developing countries, some of the aforementioned modes of IP training and education predominate, but all exist. One common thread that runs through IP training and education in developing countries is the involvement of WIPO in one way or another. There are few, if any, developing or least-developed countries where WIPO does not play or has not played some role in developing IP training and education initiatives, and there is almost no aspect of IP training and education that WIPO does not cover in at least some respect.

Indeed, WIPO has played a central role, perhaps *the* central role, in international IP training and education programs developed over the past

decades. When the organization became a specialized agency of the United Nations in 1974, it assumed responsibility “for promoting creative intellectual activity and for facilitating the transfer of technology related to industrial property to the developing countries in order to accelerate economic, social and cultural development.”¹⁴ Though its UN-related responsibilities are quite different than its former mandate, as the organization has since been required to further the UN’s development objectives generally, attitudes and activities have been slow to change. Critics allege that the organization has, in general, adopted the stance that promoting intellectual property protection universally promotes creative intellectual activity, facilitates technology transfer, and accelerates development.

Although WIPO administers a large number and wide variety of training and education activities via its different offices and departments, many are conducted under the auspices of the WIPO Academy. The academy provides teaching, training, and research services related to IP issues through activities grouped into five program areas. Yo Takagi and Mpazi Sinjela have recently described the development of WIPO Academy programming and its strategic direction in detail.¹⁵ The Policy Development Program targets some of the most influential individuals able to help steer the course of national and international IP policies: ambassadors and diplomats; government policymakers; law enforcement authorities; judges; professors; and so on. The Professional Development Program addresses the pragmatic aspects of IP skills development, such as administration and procedural issues. An Education Degree/Diploma Program involves partnerships with various postsecondary institutions in developed and developing countries, in order to create more in-depth training opportunities. There is a Research and Executive Program that is intended to provide a business-oriented perspective on IP issues. Finally, the furthest-reaching activities are run through the academy’s Distance Learning Program, which runs a number of IP courses in many different languages. Since its creation, the Academy’s tailor-made programs have served tens of thousands of people. WIPO’s website puts the number at more than eighty-seven thousand participants¹⁶; other WIPO sources indicate the number, up to the midway point of 2008, is 105,294.¹⁷

In light of the academy’s mandate, each program aims to meet four strategic goals. These include an international dimension that reflects WIPO’s broad membership; an inclusive approach in accommodating the unique cultural, economic and linguistic needs of member countries; in-depth instruction that capitalizes on WIPO’s extensive resources and experts; and an interdisciplinary character that is enriched by perspectives from law, economics, environment, business, science, technology and more.¹⁸

None of the academy's programs were developed by chance; all have been intentionally designed following strategic planning. A major symposium on IP education and research was held at WIPO's offices in Geneva in 2005,¹⁹ just as separate committee meetings on the development agenda were beginning to ramp up. The two-day discussion included some highly respected IP professors from developed and developing countries, representing an appropriately diverse range of views on the topic of IP.²⁰ Some consensus apparently emerged that a holistic approach toward IP education was appropriate, with increased emphasis on, among other things, interdisciplinary initiatives. The organization was also encouraged to support work specifically addressing the teaching of intellectual property. A book was produced and published several years later²¹; its contents and recommendations for curricular design are discussed in more detail in part IV of this paper. Another international conference was held in Geneva in 2008, which focused on intellectual property management education and research.²² A broader range of stakeholders—notably private sector industry representatives, IP administrators and business school professors—participated in that conference, the outcomes of which are not yet apparent.

The WIPO Academy has apparently recognized that it cannot fulfill worldwide demand for IP training and education, even working in partnership with various other organizations and institutions at the national level. Given that realization, the obvious response was an attempt to establish a network of academies that can serve as national nodal points for IP education.²³ A symposium held in 2007 led to the creation of the Global Network of IP Academies (GNIPA), of which there are currently seventeen members. Currently, the GNIPA has no African members. That, however, is about to change.

Part II: The Opportunity of WIPO's Development Agenda

In 2007, after several years of discussion, WIPO officially adopted a Development Agenda triggered by a proposal put forward by Argentina and Brazil.²⁴ In a long series of meetings, many dozens of proposals were advanced, debated, consolidated, and organized.²⁵ The essence of the Development Agenda is a rejection of a context-neutral, one-dimensional, and oversimplified perspective on IP's impact on development, and its associated implications for IP policies globally and locally. And while that idea may sound laudable in theory, it is difficult to implement in practice.

Thus in 2009, WIPO and its member states agreed to pursue a project-based approach for implementing the Development Agenda recommendations.

For example, an implementation project coded as DA_10_01 is already underway. The project is intended to test a new model for establishing IP training institutions in developing and least-developed countries. New academies were started in four regions—Africa, Arab Middle East, Asia and Pacific, Latin America and the Caribbean—with the goal of building capacity for human resources development in the field of IP.

This idea sounds promising, and if it is done well, it could contribute positively to the agenda's overall implementation. However, it is worth noting that some current members of WIPO's existing global network of IP academies, such as the United States Patent and Trademark Office (USPTO) for example, have been responsible for many of the activities and attitudes that the development agenda seeks to change. The USPTO's own Global Intellectual Property Academy (GIPA), not to be conflated with the network of IP Academies, the GNIPA, described above, has significant influence. This influence is demonstrated by the fact, publicized on its website, that in 2008 alone it trained more than 4,100 officials from 127 countries.²⁶ The overwhelming emphasis of this training is on IP protection and enforcement of American interests. In fact, the U.S. academy's mandate stems from the American Inventor's Protection Act of 1999,²⁷ which empowers the USPTO to "offer guidance, conduct programs and studies, and to coordinate with foreign IP offices and international organizations on issues concerning IP protection."

There is a possibility that new or existing activities implemented in collaboration or association with entities like USPTO will merely be labeled or rebranded as implementation projects, without any shift in organizational culture and stakeholder attitudes. If the WIPO Development Agenda implementation project means merely more of the same sorts of activity that have been criticized in the past, the problems that led to the Development Agenda would be exacerbated, not alleviated. Cosmetic changes alone would represent failure for the agenda and its proponents, the organization, and indeed the entire international IP community.

The new, African node in the GNIPA is in Tunisia. WIPO now lists GNIPA members in Kenya, Morocco, and Nigeria. Valuable lessons can be learned from experiences in this region of the world. Pinpointing the discussion by addressing the experience of specific country, such as Nigeria, will help to underscore the risks and opportunities inherent in establishing ostensibly new modes of IP training and education. A case study of IP training and education in Nigeria exemplifies the diverging possibilities that global discourse around IP training and education reform might either fall on deaf

ears at the local level or facilitate a more broadly participatory and critically engaging assessment of IP's role in development.

Part III: The Case of Nigeria

With an official population of one hundred and fifty million people, Nigeria is Africa's most populous country. It represents 50 percent of the West African population.²⁸ After South Africa, Nigeria is the second largest economy in Sub-Saharan Africa. Comprising an estimated 250 nationalities with a corresponding amount of language and cultural groupings, Nigeria represents the cultural hub of Africa. Nigeria's expansive creative activity is perhaps better symbolized in the recent, phenomenal growth of its film/movie industry, which produces an estimated one thousand low-cost movies annually. The industry, known as "Nollywood,"²⁹ is rated as "one of the most, if not *the* most productive of the World's movie industries."³⁰ Nigeria ranks, after India (Bollywood) and the United States (Hollywood), as the third largest movie producing nation.³¹ This context makes Nigeria a particularly interesting case study of IP education.

The legal framework for IP governance in Nigeria has remained fairly modest but bureaucratically robust. Most of Nigeria's IP laws, including those governing patents, designs, and trademarks have their roots in Nigeria's British colonial era. They have not undergone any major adjustments. But copyright has, comparatively, followed a different path as a site for active legislative and administrative interventions.³²

Copyright is administered by the Nigerian Copyright Commission (NCC), which is overseen by the Ministry of Justice. The NCC was established in 1988³³ and is funded primarily by the Nigerian government.³⁴ Because the NCC has positioned itself as the credible contact point with Nigeria for external stakeholders in IP matters, it has continued to benefit from extensive collaborations, including research, funding, and technical support from international organizations, notably the WIPO, the European Patent Office (EPO), the USPTO, the United States Department of Justice, the International Federation of the Phonographic Industry (IFPI), major multinational software companies, and agencies like the Ford Foundation among others.³⁵ Such organizations provide various technical supports, including local and international training, workshop, and research collaboration programs, for NCC staff.³⁶ WIPO tops the list of NCC external partners.

During twenty years of the NCC's existence, it and WIPO have maintained a consistent tradition of mutual courtship. The relationship between

the two deepened since the establishment of the WIPO Worldwide Academy in 1998, a timeframe that coincided with the emergence of the Nollywood. A number of Nigerian IP bureaucrats at the NCC and the patent, trademark, and designs registries continue to benefit from the WIPO training programs via the academy and other local collaborative opportunities with WIPO. Perhaps more importantly, WIPO collaborated with the NCC in the establishment of the Nigerian Copyright Institute (NCI), described as “a research training facility for the development of copyright law and administration in the African Sub-region.”³⁷

Using the NCI as its platform, the NCC embarked on promoting teaching and research in IP law in Nigerian universities. In 2008, the NCC through the NCI developed a document titled *Intellectual Property Law Syllabus for Nigerian Universities*,³⁸ which it recommends for adoption by Nigerian universities. Despite the paucity of stakeholder consultation in the curriculum project, that initiative encompasses all IP regimes, which is beyond the focus of NCC’s statutory mandate on copyright. The NCC’s curriculum initiative is commendable; to the extent that it fills the gap in the lethargic state of IP education in Nigerian universities. But the extent to which NCC, as a copyright body, should dominate the overall space for IP policy and education in Nigeria is questionable in light of the country’s progress and prospects in other realms of innovation outside the competence and expertise of NCC.

In addition to ongoing NCC-driven IP education and public enlightenment, IP education also happens in other formal or institutional and non-formal sectors. IP entered the curriculum of Nigerian universities, especially the law faculties in the late 1980s, when only a handful of them taught IP on a very modest curriculum, either as a stand-alone course or an integral aspect of commercial law. At the legal professional level, IP remained an integral aspect of the curriculum for commercial law at the Council of Legal Education’s Bar program through the Nigerian Law School. There, it has traditionally been limited to a few hours of lecture essentially devoted to the registration of trademarks, designs, the clerical aspects of the filing of convention patents, and the operations of the relevant registries. Since the 2000s, there has been an increase in the number of Nigeria’s thirty-two law faculties that teach IP in one form or another. Essentially, most of the curricula used by the universities vary from faculty to faculty. Their emphasis is on the conventional regimes of IP from mainly statutory and case-method frameworks. There is limited policy or developmental content. The same is true of the NCC curriculum initiative, save for its ambiguous reference to “emerging issues.”³⁹

High-profile professional, executive, and stakeholder workshops on IP are regular occurrences in Nigeria legal and business circles. A coalescing of stakeholders in the legal profession, the movie and music industries, and IP administration nationally and internationally has continued to promote educational and awareness programs on IP in Nigeria. Save for a few exceptional cases,⁴⁰ one of the major hallmarks of these initiatives is their focus on the interests of rights owners and the muzzling of public space for the exploration of IP from a critical and developmental context.

IP training and capacity building in Nigeria hardly engages, as Christopher May observed in 2006, with “novel or different solutions to the problems of IPR protection. Rather, countries’ specific circumstances are only likely to be accorded weight where this does not conflict with TRIPS agreement’s invocation of required legal effect and the ‘best practice’ acknowledged by WIPO.”⁴¹ Top IP bureaucrats are advertently or inadvertently, products of the transformation of that experience into “an important political (and even ideological) program of social orientation.”⁴² Again, as May rightly notes, “the WIPO’s socialization of policy makers can become very important; training and education can produce advocates in domestic policy elites for the new (and/or changed) protection of IPRs, and this may help overcome (if not silence) local objections.”⁴³

This situation must be understood in light of the fact that Nollywood provides a platform and opportunity for external interests to perpetuate a one-dimensional perspective on IP issues in Nigeria. But while the NCC’s characteristically high-profile destruction of movies and books targets the Nigerian domestic market, that effort is only a smokescreen diverting attention from the real threat to Nollywood. Most piracy of Nollywood movies happens through the unauthorized commercial replication outside of Nigeria using sophisticated technologies in remote locations, especially in industrialized countries, where Nigerians and African diasporas constitute the bulk of Nollywood patrons. In other words, developed countries, not exclusively Nigeria, are home to the ones ripping off Nigerian filmmakers. While a compact disc of Nollywood movie sells for an average of US\$1.25 in the domestic market, outside of Nigeria’s shores, pirated copies sell for an average of US\$7.00.

In Nigeria, however, IP is rapidly creeping into the consciousness of the public, courtesy of the NCC’s enlightenment campaigns, and educational and curriculum initiatives. In 2005, the NCC launched its flagship program known as Strategic Action against Piracy (STRAP). That program provides the philosophical framework for NCC’s approach to copyright and IP in Nigeria, which is essentially reduced to aggressive antipiracy campaigns.

The emerging understanding of IP by the Nigerian public does not extend to the entire interdisciplinary sphere of IP, especially in areas such as biotechnology, food security, human rights, health, and so forth. Rather, the focus is on copyright, and a regime in which the cultural and user communities of creative works are presumed to be pirates until proven otherwise.

Overall, the tone and approach to IP that the NCC champions in Nigeria issues from an unquestioned belief that a strict IP regime, one that stifles access to creative works and that empowers creators only—even at the expense of other stakeholders—is the panacea to economic and social development challenges in the polity. Backed by vocal Nollywood interest groups, NCC's STRAP readily found traction in Nigeria, assuming the status of received wisdom of public education in IP.

This promotion of a strong and unbalanced approach to IP in Nigeria is presented as a historical and context-neutral enterprise. This flies on the face of the leverage, which the later-day champions of IP, such as the United States, Japan, a bulk of EU and lately South Korea and other Asian "Tiger" countries enjoyed. At their early stages in the creative and innovative experiences, these countries were either outliers regarding conventional IP or benefitted from a development friendly and technology transfer approach to IP. Like the United States, the majority of today's industrialized countries were born pirate nations.⁴⁴

In the end, normative regulatory capture for IP policy and administration is a factor in drowning Nigeria's voice in the global policy elaborations on IP, from a development perspective. Thus far, Nigeria has failed to optimize its status as Africa's most populous country and potentially its largest market. Coupled with its creative talents as the heart of African music, movie, literature, and inexhaustible domains of culture, as well as a wealth of biological diversity and biological resources, traditional knowledge, and creative enterprise, Nigeria is also Africa's intellectual powerhouse. Nigeria is, or ought to be, a frontline developing country in a natural position to articulate African regional development agenda in the IP policy-making arena. Nigeria has failed to play in the league of Brazil, India, and China (BRIC) and other frontline countries in the Group of Friends of Development (FOD), whose persistent effort in questioning the United States-led normative approach to IP has resulted in the new development imperative in IP currently symbolized in the WIPO Development Agenda.

In sum, what this suggests is that IP education in Nigeria is lop-sided. This is mainly because the institutional champion of that initiative, the NCC, is constrained by its limited mandate. More importantly, the NCC adopts a normative and uncritical approach to IP. This explains, in part, why the

NCC courts and is courted mainly by right owners locally and internationally. Consequently, the NCC conceives itself and the IP system as essentially beholden to right owners only. So far, Nigeria's evolving IP education demonstrates a bias not only for right holders but also for the copyright regime. While Nigeria has an elaborate bureaucracy and professional and diverse institutional stakeholders in IP, the NCC has dominated the policy space required for a credible curriculum development toward the promotion of a balanced and development-sensitive IP education in Nigeria.

Part IV: The Orthodox IP Pedagogy

There is no doubt that the WIPO Academy has had tremendous success accomplishing its objectives in just over a decade of existence. Any educational institution in the world would be proud to have provided specialized subject-matter training to such a high number and diverse range of people during this relatively short period of time. A review of the academy's programs confirms that the training these participants have received is also high quality and purposive in the context of WIPO's aims; WIPO is not simply trying to churn out graduates but is successfully advancing its broader strategic objectives. One thing the academy does particularly well is emphasize an interdisciplinary approach toward IP training and education, which is a prerequisite to a holistic understanding of how IP actually functions in society. Clearly, much consultation and reflection has gone into curricular development and pedagogical strategies.

WIPO's collaborative work on the design and delivery of IP curricula is, however, far from complete. It was only in 2008 that WIPO produced its first book dedicated to the topic of IP teaching, *Teaching of Intellectual Property: Principles and Methods*.⁴⁵ There is further information about teaching method and pedagogy on the Academy's website in a document titled "Intellectual Property Teaching Methods and Pedagogy at the University Level."⁴⁶ But WIPO acknowledges that many challenges still exist.⁴⁷

A key issue that has not been independently analyzed or, it seems, adequately explored by WIPO, is the extent to which its IP curricular design, teaching materials, and course delivery are appropriate for training and education in developing countries specifically. Should IP training and education be the same in developed and developing countries? Are there topics or perspectives that might be more heavily, or even just differently, emphasized depending on the target beneficiaries?

There are some indications that the main difference in teaching people in or from developing countries is a belief that developing-country

participants need more convincing that the topic is relevant to them, so as to “demystify” IP and overcome their “prejudices” about its impact on things like health and education.⁴⁸ To change this perspective, materials include considerable hyperbole about the impact of IP protection on economic development. Yet little time is actually spent critically evaluating the issues that cause developing countries’ concerns about IP’s intersections with broader public policies and human development.

The academy’s literature does not differentiate pedagogical principles better suited for IP education in developing countries. The teaching methods and pedagogical strategies, sample curricula,⁴⁹ and resource materials for IP teaching⁵⁰ suggested by WIPO acknowledge, in passing, that a one-size-fits-all model of IP education is inappropriate, but contain little substantive content tailored for developing-country participants.

In discussing the question “how should IP be taught?”⁵¹ WIPO differentiates mainly between the face-to-face classroom and tutorial method or the distance education method of course delivery. This is an interesting and important dichotomy, but it doesn’t scratch the surface of deeper discussions about student-teacher roles, learning styles, choices of materials, and other pedagogical issues. Other documents touch on the differences between the case method and problem method of teaching, which is also a useful pedagogical discussion. But more detail and richer discussion of these topics is key to delivering the most effective IP training and education possible. It is possible, and even likely, that there are specific strategies better suited to different types of learners in different circumstances, such as those in developing countries, for example.

The WIPO Academy provides particular guidance on setting up an IP curriculum in universities.⁵² University programs involving IP may take at least three forms, according to the academy: overview courses for nonlegal disciplines such as business, engineering, or science; introductory or advanced courses on IP law; and specialized, in-depth programs for postgraduates. Topics covered depend on the nature of the program, but might include the scope of rights, procedures for obtaining protection, and enforcement mechanisms. Courses covering these topics might be survey courses, specialized courses, advanced seminars, or practice courses. Full-time faculty members or adjunct lecturers might teach them. Again, course offerings and instructors will vary by program.

Academy documents on pedagogy devote only a few short paragraphs to the topic of teaching IP in developing countries. A lack of topical awareness and scarce resources are identified as obstacles to effective program delivery. University professors and administrators, as well as policymakers who

have realized that IP “is an indispensable instrument in achieving desired economic and cultural objectives”⁵³ can, according to the academy, help overcome these challenges to delivering IP training and education in developing countries. Beyond that point, nothing more substantive is said about this issue.

The rest of WIPO’s guidance on IP pedagogy is relatively generic. New teachers are advised to rely on well-established textbooks by recognized experts in the field. A less cautious approach is appropriate only for more experienced professors and practitioners. The academy has compiled links to research and resources that can be used for IP training and education. Most of these are actually WIPO meeting documents and commissioned reports, though there are some independent materials referenced also.

The resource list is, however, several years out of date. Moreover, the topical lists and materials therein fail to adequately cover the range of critical analysis and perspectives that currently exist on important intersections between IP, development, and related public policies. A typical example is a resource on “emerging issues” that purports to present a Nigerian perspective on IP.⁵⁴ Like many of the other recommended materials, it contains a rights-focused analysis, with references to development sprinkled throughout but not substantively addressed.

The WIPO academy’s most comprehensive output regarding teaching IP is the recently published book on the topic. Contributors to the edited collection include a widely renowned group of IP experts, representing reasonably diverse perspectives on IP issues. Individual chapters cover the staple subjects: patents, copyrights, and trademarks, as well as specialty topics like industrial designs, IP and competition, economics and IP, IP in business schools, IP for nonlawyers, IP practice, distance learning of IP, and current trends. There is no specific discussion of IP and development, IP in developing countries, or anything to that effect. The concluding chapter on current trends and future developments comes closest to representing a critical perspective.

There are statements sprinkled throughout the book that ostensibly reflect different perspectives. In general, however, the book’s contents conservatively reflect the standard IP dogma that fueled criticism and led to adoption of recommendations for the WIPO Development Agenda.

The chapter on patents, for example, omits much discussion about contemporary public policy issues, including the intersection between pharmaceutical patents and public health—a topic that is sure to be of interest to many students, especially students from developing countries. That the

topic is controversial and generates a wide array of differing perspectives should be a reason to engage it, not to shy away from it.

The chapter on copyrights and related rights expressly advises professors to emphasize to students that the WIPO Internet treaties (including protection for technological protection measures) do not fundamentally change international norms; are “well-balanced, flexible, and duly take into account legitimate interests of all the countries with different levels of development and of all major stakeholders”; are not economically or legislatively burdensome; and do not extend the scope of copyright protection. Such advice is understandable from an expert who played a key role in the formation and promotion of the treaties.⁵⁵ It does not, however, objectively reflect the diversity of perspectives on the controversial topics of digital copyright generally nor anti-circumvention legislation specifically. In fact, the advice probably contradicts the views of many experts in and from developing countries, who might counsel IP teachers to deliver a more objective and nuanced instruction.⁵⁶

Part V: Opening Minds about IP and Development

Given the diversity of the purposes for and participants in IP training programs, it would be naïve to believe that this paper can proscribe the key to better pedagogy with respect to IP and development. It is, however, feasible and appropriate to offer some possible suggestions on approaches to better integrate IP training and education with the principles underpinning the development agenda. This can take place via the creation of new programs and activities by the academy, the evaluation and adjustment of existing academy programs, and/or the engagement of external stakeholders.

The simplest, and most modest, tactic for teaching a more development-oriented perspective on IP would be to integrate relevant, critical content into existing activities. Corresponding pedagogical strategies could be adopted to provoke a more open-minded investigation into the complex linkages among IP and development. This requires abandoning unquestioned assumptions that IP protection always facilitates development. At the same time, however, one must not assume that IP protection impedes development, or that greater access to knowledge is preferable to achieve developmental objectives. Open and proprietary systems of knowledge governance are not binary, mutually exclusive options. Further, they are not merely opposite ends of a spectrum. The relationship between IP and open access is even more complex than that.

Often IP can be exploited in innovative ways in order to guarantee openness. Concrete examples include the general public license (GPL) that underpins the open source software community. That mechanism and the communities that embrace it would disintegrate without a strong and enforceable system of IP rights, which are the very things being *licensed* by the GPL. Similarly, one might realize that Creative Commons licenses are essentially a digital rights management (DRM) system. DRM systems include up to three core components: technological protection measures; rights management information practices; and end user license agreements. The Creative Commons licenses rely fundamentally on the latter two components for managing digital rights. Copyright law is the basis for the ability to require users to, for example, attribute authorship, maintain the integrity of a work, or license derivative works on the same terms to other communities of users.

A more ambitious endeavor in IP education (short of a complete curricular overhaul, which seems unnecessary and inadvisable in most cases) would be the creation of new courses specifically concentrating on IP, development, and the global public policy challenges that countries around the world, especially developing countries, struggle with. In framing such a course, one strategy is to consciously place public policy objectives at the fore, and to expose students to the linkages between knowledge governance and key global challenges—such as climate change, food security, population health, public education, gender equity, and poverty reduction—before delving into the specific details of IP statutes or doctrine. Questions for class investigation might include the following:

- How does global patent policy impact the HIV/AIDS crisis in Africa, and why is that relevant to the real threat of other worldwide pandemics?
- What is the link between intellectual property law, environmental biodiversity, and climate change?
- Is copyright constraining access to learning materials and education, and if so, who is affected, where, how and why?
- Are Western-style copyrights, patents, and trademarks appropriate to protect the traditional knowledge and cultures of indigenous peoples throughout the world?
- How is international intellectual property policy affecting the use of the Internet and mobile communication networks as mediums for cultural transformation and more participatory system of democracy?
- Does the increasing concentration of patents over plants' genetic resources threaten the livelihoods of subsistence farmers, or even global food security more generally?

Orienting an entire course around these themes, rather than appending them as a module on current issues to be dealt with at the end of a basic or advanced course, time permitting, could yield extraordinary and perhaps unexpected benefits. In particular, it has the effect of situating students' mindset within an appropriate context, so that IP can be more easily seen for what it is: a means to achieving broader social policy objectives. It can be an effective strategy to open students' minds to a big picture of the role IP plays in society and how IP contributes to, or perhaps impedes, development.

Part VI: Conclusions on IP Education and Open Development

An emerging discourse around the concept of openness applied to international development bears significant promise for shifting the conceptual paradigms that dominated the latter half of the twentieth century. In the area of IP, there is the potential to move from a trade-based framework that emphasized strong, harmonized protection as a means to facilitate technology transfer to spur economic growth in developing countries, to a human-centered system that has freedom and sustainability as its core values. In Nigeria and many other developing countries, however, IP training and education is still driven by narrow-minded beliefs perpetuated over decades of program activities designed to convince people that IP was a solution to their problems.

A failure to acknowledge uncertainty, nuance, and complexity in IP education would undermine efforts to leverage a locally appropriate IP system for economic, social, and cultural growth. Because open-mindedness is crucial to the capacity building that facilitates autonomous development, it must be the cornerstone of both policy and pedagogy of IP training programs in developing countries.

The new WIPO Development Agenda presents an opportunity to reverse previous trends and make this happen. Although some of its recommendations formally treat capacity building as distinct from norm setting, there is undoubtedly and almost inevitably a normative or ideological aspect to all training and educational activities. They reflect values and beliefs in relation to the issue addressed. In this sense, training and education is categorically *not* just technical assistance. More open-minded pedagogical approaches are, therefore, required in order to realize the more nuanced truths about the roles that IP can and cannot play in development. Future research and capacity-building activities conducted by WIPO would benefit from consolidation to facilitate better monitoring and coordination. By assisting rather than administering programs delivered externally, and

refocusing support toward students more directly, WIPO and its partner organization should be better placed to respond to the challenges of opening minds to the future possibilities for IP and development.

Notes

This chapter is derived, with substantial revisions, from *Intellectual Property Training and Education: A Development Perspective*, by Jeremy de Beer and Chidi Oguamanam and published through the International Centre for Trade and Sustainable Development (ICTSD) Programme on Intellectual Property Rights and Sustainable Development (Issue Paper No. 31 (2010)). The authors acknowledge with gratitude the financial and other support of ICTSD and IDRC, the research assistance of Tavengwa Runyowa, and the editorial and substantive comments of Matthew L. Smith, Katherine M. A. Reilly, and multiple anonymous peer reviewers.

1. K. Idris, *Intellectual Property: A Power Tool for Economic Growth*, 2nd. ed. (Geneva: World Intellectual Property Organization, 2003).
2. P. Drahos and J. Braithwaite, *Information Feudalism: Who Owns the Knowledge Economy?* (London: Earthscan, 2003); C. May, *A Global Political Economy of Intellectual Property Rights: The New Enclosures?* (London: Routledge, 2000); S. Sell, *Private Power, Public Law: The Globalization of Intellectual Property Rights* (Cambridge: Cambridge University Press, 2003); S. Sell and C. May, *Intellectual Property Rights: A Critical History* (Boulder, CO: Lynne Rienner Publishers, 2006).
3. C. Armstrong, J. de Beer, D. Kawooya, A. Prabhala, and T. Schönwetter, *Access to Knowledge in Africa: The Role of Copyright* (Cape Town: University of Cape Town Press, 2010).
4. R. Okediji, "WIPO-WTO Relations and the Future of Global Intellectual Property Norms," *Netherlands Yearbook of International Law* 39, (2008): 69–125.
5. Convention Establishing the World Intellectual Property Organization, Stockholm, July 14, 1967, in *Treaties and International Agreements Registered or Filed or Reported with the Secretariat of the United Nations*, 828, no. 11846 at 11.
6. For example, see H. Arai, *Intellectual Property Policies for the Twenty-First Century: The Japanese Experience in Wealth Creation* (Geneva: WIPO, 1999).
7. J. Boyle, "A Manifesto on WIPO and the Future of Intellectual Property," *Duke Law and Technology Review* 9, (2004): 1–12.
8. Commission on Intellectual Property Rights. 2002. *Integrating Intellectual Property Rights and Development*, http://www.iprcommission.org/graphic/documents/final_report.htm.
9. C. Fink and K. E. Maskus, eds. *Intellectual Property and Development: Lessons from Recent Economic Research* (Oxford: The World Bank and Oxford University Press), pp. 1–15.

10. J. de Beer, ed. *Implementing the WIPO's Development Agenda*. (Waterloo, ON: International Development Research Centre/Centre for International Governance Innovation/Wilfred Laurier University Press, 2009); C. Deere, *The Implementation Game: The TRIPs Agreement and the Global Politics of Intellectual Property Reform in Developing Countries* (Oxford: Oxford University Press, 2008); D. Gervais, ed. *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPs Plus Era* (Oxford: Oxford University Press, 2007); C. May, *The World Intellectual Property Organization: Resurgence and the Development Agenda* (London: Routledge, 2007); N. W. Netanel, ed. *The Development Agenda: Global Intellectual Property and Developing Countries*. (Oxford: Oxford University Press, 2008).
11. A. Kapczynski, "The Access to Knowledge Mobilization and the New Politics of Intellectual Property," *Yale Law Journal* 117, (2008): 804.
12. G. Krikorian and A. Kapczynski, eds. *Access to Knowledge in the Age of Intellectual Property* (New York: Zone Books, 2010); H. Chesbrough, W. Vanhaverbeke, and J. West, eds. *Open Innovation: Researching a New Paradigm* (Oxford: Oxford University Press, 2006).
13. K. R. Hope, "Investing in Capacity Development: Towards an Implementation Framework," *Policy Studies* 32, no. 1 (2011): 59–72.
14. Agreement between the United Nations and the World Intellectual Property Organization, September 27, 1974, in *Treaties and International Agreements Registered or Filed or Reported with the Secretariat of the United Nations*, 956, no. 729, 406–407.
15. Y. Takagi and M. Sinjela, "Harnessing the Power of Intellectual Property Strategy and Programs of the WIPO Worldwide Academy," *World Patent Information* 29 (2007): 161–167.
16. WIPO Worldwide Academy, <http://www.wipo.int/academy/en>.
17. World Intellectual Property Organization. *WIPO Worldwide Academy 1998–2008, A Decade of Excellence, A Decade of Achievement* (Geneva: WIPO, 2008).
18. Takagi and Sinjela, "Harnessing the Power," 2007.
19. "International Symposium on Intellectual Property (IP) Education and Research," WIPO (Geneva, June 30 and July 1, 2005), http://www.wipo.int/academy/en/meetings/iped_sym_05/index.html.
20. The program, including hyperlinks to speakers' presentations, is available at http://www.wipo.int/academy/en/meetings/iped_sym_05/program_detailed.html.
21. Y. Takagi, L. Allman, and M. A. Sinjela, eds. *Teaching of Intellectual Property: Principles and Methods* (Cambridge, Cambridge University Press, 2008).
22. "International Conference on Intellectual Property Management Education and Research Program," WIPO (Geneva: July 17–18, 2008), http://www.wipo.int/pressroom/ja/articles/2008/article_0040.html.

23. General information can be found at <http://www.wipo.int/academy/en/ipacademies>.
24. World Intellectual Property Organization (WIPO), "Proposal by Argentina and Brazil for the Establishment of a Development Agenda for WIPO," Doc. WO/GA/31/11, *WIPO General Assembly*, 31st Session (Geneva, September 27-October 5, 2004), http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=31737.
25. de Beer, *Implementing*, 2009.
26. <http://www.uspto.gov/ip/training/index.jsp>.
27. *American Inventor's Protection Act of 1999*, Public Law 106-113, 106th Congress (November, 1999).
28. The West African region comprises sixteen countries and has an estimated population of three hundred million people which represents 4.6 percent of the global population and roughly the same population as United States and almost 60 percent of the European Union.
29. *This is Nollywood*, <http://www.thisisnollywood.com/film.htm>.
30. M. F. Schultz, "The Nigerian movie industry and the lessons regarding cultural diversity from home-market effects of model of international trade in film," <http://www.copyrightalliance.org/wp-content/uploads/2012/05/Schultz-Nollywood.pdf>.
31. J. Vasagar, "Welcome to Nollywood," <http://www.guardian.co.uk/film/2006/mar/23/world.features>.
32. This is somehow understandable because copyright is the platform for negotiating and translating aspects of international developments, especially in regard to the protection of folklore and other forms of peripheral regimes considered critical to Nigeria's interests. Also, compared to patents, industrial designs, trademarks, and so forth (i.e., industrial property in general) most of Nigeria's creative industries, such as music, writing, broadcast, performances lie in the cultural domains within the ambit of copyright.
33. Originally, the Copyright Decree of 1988 established the Copyright Council which was later upgraded to a Copyright Commission (as the main outfit for the administration of copyright and neighboring rights) via a 1996 amendment.
34. As in most federal systems, intellectual property is constitutionally within the exclusive legislative list of the federal government of Nigeria.
35. In 2008, the Ford Foundation funded a collaborative initiative with the NCC entitled *The Survey of Copyright Piracy in Nigeria*. The study concluded that the level of piracy of copyrighted works in Nigeria is at 58 percent. Also, Microsoft Corporation provides support for training of NCC and Nigerian IP bureaucrats on copyright infringement detection and enforcement.

36. Presently, WIPO is involved with NCC in a project that would among other things determine the value and contributions of “copyright based industries” to Nigeria’s GDP and overall economy. The project is titled *The Survey on the Contributions of Copyright Industries to Nigeria’s GDP*.

37. Nigerian Copyright Commission, <http://www.copyright.gov.ng>.

38. Nigerian Copyright Institute, *Intellectual Property Law Syllabus for Nigerian Universities* (Abuja: NCC, 2008). (Document on file with the authors.)

39. For instance, outside of statutory exploration of copyright the curriculum includes two additional heads of issues under the titles “International Dimensions” and “Emerging Issues.” Listed under the latter are: Copyright in the Digital Environment, Copyright and the Internet, Computer Software, and New Development. Similarly after, exploration of textual provision of the Patent Act, it lists some treaties under the head of International Dimensions. It also provides for Emerging Issues under which are listed: traditional knowledge, traditional medicine and biodiversity in Nigeria, biotechnology inventions, and protection of plant variety.

40. Occasionally there are well-resources workshops and learning sessions that provide opportunities for critical and balanced exploration of the promises of intellectual property for Nigeria development. For example, in 2005, the Nigeria National Medicine Development Agency (NNMDA) organized a very successful workshop titled “Traditional Medicinal Practice and Intellectual Property Rights,” which provided impetus for a Draft Legislation on the Protection of Traditional Knowledge, Regulation of Access to Biological Resources and Related Matters. In 2009, the IDRC, the NCC and other co-sponsored a successful workshop and learning session titled “Indigenous Knowledge and Intellectual Property: Implications for Nigeria’s Development at the University of Ibadan.”

41. C. May, “The World Intellectual Property Organization (Global Monitor),” *New Political Economy* 11, no. 3, (2006): 435–445.

42. May, “The World Intellectual,” 440.

43. Ibid.

44. L. Lessig, “Piracy,” in *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (New York: Penguin Press, 2004), 63.

45. Takagi et al., *Teaching of Intellectual Property*, 2008.

46. “Teaching Method and Pedagogy,” www.wipo.int/academy/en/about/teaching/pedagogy/index.html.

47. Takagi and Sinjela, “Harnessing the Power,” 2007; WIPO, “WIPO Worldwide Academy,” 2008.

48. WIPO, *WIPO Worldwide Academy*, 2008, 8.

49. "Teaching IP: Sample Curricula," WIPO, www.wipo.int/academy/en/about/teaching/sample_curricula/index.html.
50. Idris, *Intellectual Property*, 2003; WIPO, *WIPO Worldwide Academy*, 2008; Takagi and others, *Teaching of Intellectual Property*, 2008.
51. http://www.wipo.int/academy/en/about/teaching/teaching_research/index.html.
52. <http://www.wipo.int/academy/en/about/teaching/pedagogy/index.html>.
53. World Intellectual Property Organization (WIPO), "The Teaching of Intellectual Property Law," in *Introduction to Intellectual Property: Theory and Practice* (London: UK, 1997), 567.
54. C. T. Owoseni, "Recent Developments and Challenges in the Protection of Intellectual Property Rights. New Developments and Challenges in the Protection of Intellectual Property Rights: A Nigerian Perspective," WIPO/ECTK/SOF/01/2.7, http://www.wipo.int/edocs/mdocs/ip-conf-bg/en/wipo_ectk_sof_01/wipo_ectk_sof_01_2_7.pdf.
55. M. Ficsor, *The Law of Copyright and the Internet: The 1996 WIPO Treaties, Their Interpretation and Implementation* (Oxford: Oxford University Press, 2002).
56. See, for example, R. L. Okediji, "The Regulation of Creativity Under the WIPO Internet Treaties," *Fordham Law Review* 77, no. 5 (2009): 2379–2410; see also Commission on Intellectual Property Rights (CIPR), *Integrating Intellectual Property Rights and Development Policy* (London: CIPR, 2002).

Bibliography

- Armstrong, C., J. de Beer, D. Kawooya, A. Prabhala, and T. Schönwetter. *Access to Knowledge in Africa: The Role of Copyright*. Cape Town: University of Cape Town Press, 2010.
- Boyle, J. "A Manifesto on WIPO and the Future of Intellectual Property." *Duke Law and Technology Review* 9 (2004): 1–12.
- Chesbrough, H., W. Vanhaverbeke, and J. West, eds. *Open Innovation: Researching a New Paradigm*. Oxford: Oxford University Press, 2006.
- de Beer, J., ed. *Implementing the WIPO's Development Agenda*. Waterloo, ON: International Development Research Centre; Centre for International Governance Innovation; Wilfred Laurier University Press, 2009.
- Deere, C. *The Implementation Game: The TRIPs Agreement and the Global Politics of Intellectual Property Reform in Developing Countries*. Oxford: Oxford University Press, 2008.

Drahos, P., and J. Braithwaite. *Information Feudalism: Who Owns the Knowledge Economy?* London: Earthscan, 2003.

Ficsor, M. *The Law of Copyright and the Internet: The 1996 WIPO Treaties, Their Interpretation and Implementation*. Oxford: Oxford University Press, 2002.

Fink, C., and K. E. Maskus, eds. *Intellectual Property and Development: Lessons from Recent Economic Research*. Oxford: The World Bank and Oxford University Press, 2005, 1–15.

Gervais, D., ed. *Intellectual Property, Trade and Development: Strategies to Optimize Economic Development in a TRIPS Plus Era*. Oxford: Oxford University Press, 2007.

Hope, K. R. "Investing in Capacity Development: Towards an Implementation Framework." *Policy Studies* 32 (1) (2011): 59–72.

Idris, K. *Intellectual Property: A Power Tool for Economic Growth*. 2nd ed. Geneva: World Intellectual Property Organization, 2003.

Kapczynski, A. "The Access to Knowledge Mobilization and the New Politics of Intellectual Property." *Yale Law Journal* 117 (2008): 804–885.

Krikorian, G., and A. Kapczynski, eds. *Access to Knowledge in the Age of Intellectual Property*. New York: Zone Books, 2010.

Lessig, L. "Piracy." In *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*, 62–79. New York: Penguin Press, 2004.

May, C. *A Global Political Economy of Intellectual Property Rights: The New Enclosures?* London: Routledge, 2000.

May, C. "The World Intellectual Property Organization (Global Monitor)." *New Political Economy* 11 (3) (2006): 435–445.

May, C. *The World Intellectual Property Organization: Resurgence and the Development Agenda*. London: Routledge, 2007.

Netanel, N. W., ed. *The Development Agenda: Global Intellectual Property and Developing Countries*. Oxford: Oxford University Press, 2008.

Okediji, R. "WIPO-WTO Relations and the Future of Global Intellectual Property Norms." *Netherlands Yearbook of International Law* 39 (2008): 69–125.

Owoseni, C. T. "Recent Developments and Challenges in the Protection of Intellectual Property Rights. New Developments and Challenges in the Protection of Intellectual Property Rights: A Nigerian Perspective." WIPO/ECTK/SOF/01/2.7. http://edocs/mdocs/ip-conf-bg/en/wipo_ectk_sof_01/wipo_ectk_sof_01_2_7.pdf.

Sell, S. *Private Power, Public Law: The Globalization of Intellectual Property Rights*. Cambridge: Cambridge University Press, 2003.

Sell, S., and C. May. *Intellectual Property Rights: A Critical History*. Boulder, CO: Lynne Rienner Publishers, 2006.

Takagi, Y., and M. Sinjela. "Harnessing the Power of Intellectual Property Strategy and Programs of the WIPO Worldwide Academy." *World Patent Information* 29 (2007): 161–167.

Takagi, Y., L. Allman, and M. A. Sinjela, eds. *Teaching of Intellectual Property: Principles and Methods*. Cambridge: Cambridge University Press, 2008.

World Intellectual Property Organization (WIPO). The Teaching of Intellectual Property Law. In *Introduction to Intellectual Property*, 563–580. London, UK: Theory and Practice, 1997.

World Intellectual Property Organization (WIPO). "Proposal by Argentina and Brazil for the Establishment of a Development Agenda for WIPO." Doc. WO/GA/31/11. *WIPO General Assembly*, 31st Session. Geneva, September 27–October 5, 2004. http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=31737.

World Intellectual Property Organization (WIPO). *WIPO Worldwide Academy 1998–2008, A Decade of Excellence, A Decade of Achievement*. Geneva: WIPO, 2008.