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Legal Studies
Research Paper Series
Research Paper No. 12–31

Intellectual Property Training and Education for Development

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ARTICLE

INTELLECTUAL PROPERTY TRAINING AND EDUCATION FOR DEVELOPMENT

PETER K. YU*

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I. INTRODUCTION

In October 2007, the World Intellectual Property Organization ("WIPO") formally adopted the Development Agenda,[1] which included forty-five recommendations for enhancing the development dimension of the organization.[2] Recommendation 1 states specifically that technical assistance provided by WIPO shall be "development-oriented, demand-driven and transparent, taking into account the priorities and the special needs of developing countries, especially LDCs [least developed countries], as well as the different levels of development of Member States."[3] That recommendation further states that "design, delivery mechanisms and evaluation processes of technical assistance programs should be country specific."[4]

In addition, the adopted Agenda includes recommendations targeting issues that range from the transfer of technology[5] to

1. Press Release, World Intellectual Prop. Org. [WIPO], Member States Adopt a Development Agenda for WIPO, WIPO Doc. PR/2007/521 (Oct. 1, 2007).

2. WIPO, The 45 Adopted Recommendations Under the WIPO Development Agenda, http://www.wipo.int/ip-development/en/agenda/recommendations.html (last visited Sept. 7, 2012) [hereinafter 45 Adopted Recommendations] (listing the forty-five recommendations for actions).

3. *Id.* recommendation 1.

4. *Id.*

5. *See id.* cluster C (providing a set of recommendations focusing on technology transfer, information and communication technologies, and access to knowledge).

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response to the digital divide[6] and from the protection of genetic resources and traditional knowledge[7] to the preservation of the public domain.[8] By underscoring the need for country-specific program designs, delivery mechanisms, and evaluation processes, the Development Agenda makes clear its shift away from the simplistic one-size-fits-all—or, more precisely, super-size-fits-all[9]—approach that has dominated intellectual property law and policy in the past few decades.[10]

6. *See id.* recommendation 24 (calling on WIPO to "expand the scope of its activities aimed at bridging the digital divide, in accordance with the outcomes of the World Summit on the Information Society . . . also taking into account the significance of the Digital Solidarity Fund").

7. *See id.* recommendation 18 (urging the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore to "accelerate the process on the protection of genetic resources, traditional knowledge and folklore").

8. *See id.* recommendation 16 (calling on WIPO to "[c]onsider the preservation of the public domain within WIPO's normative processes and deepen the analysis of the implications and benefits of a rich and accessible public domain"); *id.* recommendation 20 (requesting WIPO to "promote norm-setting activities related to IP [intellectual property] that support a robust public domain in WIPO's Member States, including the possibility of preparing guidelines which could assist interested Member States in identifying subject matters that have fallen into the public domain within their respective jurisdictions").

9. *See* Shamnad Basheer & Annalisa Primi, *The WIPO Development Agenda: Factoring in the "Technologically Proficient" Developing Countries*, *in* IMPLEMENTING THE WORLD INTELLECTUAL PROPERTY ORGANIZATION'S DEVELOPMENT AGENDA 100, 110 (Jeremy de Beer ed., 2009) [hereinafter IMPLEMENTING WIPO'S DEVELOPMENT AGENDA] (alluding to the "one-'super-size'-fits-all model"); James Boyle, *A Manifesto on WIPO and the Future of Intellectual Property*, 2004 DUKE L. & TECH. REV. No. 9, at 4 ("One size fits all. And it is 'extra large.'"); Jeremy de Beer, *Defining WIPO's Development Agenda*, *in* IMPLEMENTING WIPO'S DEVELOPMENT AGENDA, *supra*, at 1, 3 (referring to "a one-size, especially a supersize, model of global IP law"); Peter K. Yu, *The Global Intellectual Property Order and Its Undetermined Future*, 1 WIPO J. 1, 9 (2009) (noting the problems raised by a "super-size-fits-all model").

10. *See* Jeremy de Beer & Chidi Oguamanam, INTELLECTUAL PROPERTY TRAINING AND EDUCATION: A DEVELOPMENT PERSPECTIVE 4 (ICTSD Programme on IPRs and Sustainable Development, Issue Paper No. 31, 2010), *available at* http://ictsd.org/downloads/2010/11/iptrainingandeducation.pdf ("[T]he essence of the [WIPO 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."); Ricardo Meléndez-Ortiz, *Foreword* to de Beer & Oguamanam, *supra*, at vi ("During this period, the global IP landscape has also witnessed important changes, most notably the serious questioning of a 'one-size-fits-all' approach, which tended to prevail in the design

To help construct a positive policy and research agenda for international intellectual property law, this article explores ways to improve the design and delivery of intellectual property training and educational programs. Part II reflects on WIPO's changing orientation and outlines the principles and goals recognized in its Development Agenda. Part III emphasizes the need for an expansion of coverage in intellectual property training and educational programs. It also offers guidelines on ways to redesign these programs. Part IV highlights the need for introducing a more diverse set of skills and perspectives through training and educational programs. Part V suggests innovative methods to enhance delivery of these programs.

Given its limited length and the existence of other sources, this article does not seek to provide a full examination of either the teaching of intellectual property subjects[11] or WIPO's training and educational programs.[12] The article also refrains from providing any top-down recommendations. After all, there is no universally effective approach to promote development, and what works well for one developing country may not work well for another.

Finally, with respect to its recommendations, this article focuses more on macro-level developments than on micro-level developments. With policymakers, diplomats, government officials, and members of regional and national intellectual property offices in mind, the discussion in the article covers policy training more than business training.

The reasons are twofold. First, policy training is needed to address the challenging policy questions raised by the increasingly complex international intellectual property regime, which covers more than trade and intellectual property areas.[13] Such training is also urgently

of IP norms and the delivery of IP technical assistance. The WIPO Development Agenda . . . recommendations, adopted in 2007, have been an important milestone in this evolution.").

11. For discussions of the teaching of individual intellectual property subjects, see generally TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS (Yo Takagi et al. eds., 2008) [hereinafter TEACHING OF INTELLECTUAL PROPERTY]; Symposium, *Teaching Intellectual Property Law*, 52 ST. LOUIS U. L.J. 715 (2008).

12. *See generally* de Beer & Oguamanam, *supra* note 10 (discussing WIPO's training and educational programs).

13. *See generally* Eyal Benvenisti & George W. Downs, *The Empire's New Clothes: Political Economy and the Fragmentation of International Law*, 60 STAN.

needed in the wake of the proliferation of bilateral, plurilateral, and regional trade agreements, including the highly controversial Anti-Counterfeiting Trade Agreement ("ACTA")[14] and the equally problematic Trans-Pacific Partnership Agreement ("TPP").[15]

Second, although business training is as important to developing countries as policy training, it is anticipated that developed country governments, national and regional intellectual property offices, trade associations, and private rights holders will continue to actively provide programs in this area.[16] Although one could certainly question the orientation of some of these programs—in particular, whether they take into account the special needs of authors, inventors, and rights holders in developing countries—the differences between business-training programs are likely to be less substantial than differences between policy-training programs.

II. THE PRINCIPLES AND GOALS OF THE

L. REV. 595, 596–600 (2007) (discussing the growing "proliferation of international regulatory institutions with overlapping jurisdictions and ambiguous boundaries"); Peter K. Yu, *International Enclosure, the Regime Complex, and Intellectual Property Schizophrenia*, 2007 MICH. ST. L. REV. 1, 13–21 (discussing development of "international intellectual property regime complex").

14. Anti-Counterfeiting Trade Agreement, *opened for signature* May 1, 2011, *available at* http://www.mofa.go.jp/policy/economy/i_property/pdfs/acta1105_en.pdf. *See generally* Peter K. Yu, *ACTA and Its Complex Politics*, 3 WIPO J. 1 (2011) [hereinafter *ACTA and Its Complex Politics*] (criticizing the use of the "country club" approach to negotiate ACTA); Peter K. Yu, *Enforcement, Enforcement, What Enforcement?*, 52 IDEA (forthcoming 2012) (suggesting ways to improve the design of an anticounterfeiting trade agreement); Peter K. Yu, *Six Secret (and Now Open) Fears of ACTA*, 64 SMU L. REV. 975 (2011) [hereinafter *Six Secret Fears*] (discussing the serious concerns about ACTA).

15. *See Trans-Pacific Partnership*, OFFICE OF THE U.S. TRADE REPRESENTATIVE, http://www.ustr.gov/tpp (last visited Sept. 7, 2012) (providing up-to-date information about the Trans-Pacific Partnership (TPP)). *See generally* Meredith Kolsky Lewis, *The Trans-Pacific Partnership: New Paradigm or Wolf in Sheep's Clothing?*, 34 B.C. INT'L & COMP. L. REV. 27 (2011) (discussing the negotiation of the TPP and its uniqueness vis-à-vis other bilateral and plurilateral trade agreements); Peter K. Yu, *The Alphabet Soup of Transborder Intellectual Property Enforcement*, 60 DRAKE L. REV. DISCOURSE 16, 24–28 (2012) (explaining why TPP is likely to be more dangerous than ACTA from a public interest standpoint).

16. *See* de Beer & Oguamanam, *supra* note 10, at 6 (noting the training and educational programs provided by developed-country governments, national and regional intellectual property offices, trade associations, and private rights holders).

DEVELOPMENT AGENDA

Although the WIPO Development Agenda does not specifically mention training and education, recommendation 3, which was earmarked for immediate implementation, recognizes the need to "[i]ncrease human and financial allocation for technical assistance programs in WIPO for promoting a, *inter alia*, development-oriented intellectual property culture, with an emphasis on introducing intellectual property at different academic levels and on generating greater public awareness on intellectual property."[17] Training and educational programs can also fit within the larger rubric of technical assistance and capacity building,[18] or technology transfer, information and communication technologies, and access to knowledge.[19]

In addition, the success of these programs can affect the outcome of norm-setting activities.[20] The more informed policymakers are about the intellectual property system, the available policy options, and the ongoing global developments, the better results they can obtain through multilateral and nonmultilateral negotiations. Training and educational programs can also have direct or indirect impacts on issues raised in the Development Agenda, such as brain drain[21] and assessment, evaluation, and impact studies.[22]

Grouped together, the forty-five recommendations of the Development Agenda suggest a new set of issues that training and educational programs should cover:

17. 45 Adopted Recommendations, *supra* note 2, recommendation 3.
18. *See id.* cluster A.
19. *See id.* cluster C.
20. *See id.* cluster B.
21. *See id.* recommendation 39 (requesting WIPO to "assist developing countries, especially African countries, in cooperation with relevant international organizations, by conducting studies on brain drain and make recommendations accordingly").
22. *See* de Beer & Oguamanam, *supra* note 10, at 4–5 ("Training and education is not just technical assistance. Training and education is also related to assessment, evaluation and impact studies, particularly as advanced training and education in post-secondary institutions, government agencies and other public policy making organizations is inextricable from IP research activities."); *see also* 45 Adopted Recommendations, *supra* note 2, cluster D (providing a set of recommendations focusing on assessment, evaluation, and impact studies).

- intellectual property and competition policies;[23]
- intellectual property, information and communication technology, and the digital divide;[24]
- intellectual property protection and the public interest;[25]
- the use of flexibilities in international intellectual property agreements;[26]
- the protection of genetic resources, traditional knowledge, and traditional cultural expressions;[27]
- the preservation of the public domain and access to knowledge and technology;[28]
- transfer, dissemination, and innovation of technology;[29]
- special and differential treatment for developing countries;[30]
- brain drain and the acquisition of human capital;[31] and
- transparency and the rule of law.[32]

To incorporate these development-related issues, training and educational programs can be redesigned in three ways. First, one could completely revamp the existing programs so that the new issues can be fully integrated into the existing program materials. The cost of such an approach is likely to be quite high. There are substantial benefits, however. By facilitating full integration, the participants of training and educational programs will be able to form a holistic perspective of the intellectual property system. They will therefore obtain a more balanced view of the system's different aspects. They will also have a more nuanced understanding of the rights and obligations concerning intellectual property protection.

Second, one could add some of the identified development-related

23. *See* 45 Adopted Recommendations, *supra* note 2, recommendations 7, 22, 23, 32.
24. *See id.* recommendations 9, 24, 27.
25. *See id.* recommendation 10.
26. *See id.* recommendations 14, 17, 22.
27. *See id.* recommendation 18.
28. *See id.* recommendations 16, 19, 20.
29. *See id.* recommendations 11, 19, 22, 23, 25, 28, 29, 30, 31, 45.
30. *See id.* recommendations 1, 22, 25.
31. *See id.* recommendations 34, 39.
32. *See id.* recommendations 1, 6, 42, 43, 44.

issues to the existing materials as new or substitute topics. The WIPO Academy, for example, already offers a variety of courses, which range from Electronic Commerce and Intellectual Property (DL-202) to Trademarks, Industrial Designs and Geographical Indications (DL-302) to Intellectual Property Management (DL-450).[33] Compared with the first approach, this approach will greatly reduce the cost of curricular integration. Meanwhile, it will still allow the participants of training and educational programs to have a somewhat holistic perspective of the intellectual property system.

Third, one could offer additional standalone programs that focus intensely on some of the new topics. Such a focus would allow the participants of training and educational programs to have a deeper and more sophisticated understanding of each topic. Indeed, many of the topics would be good candidates for standalone training and educational programs. For example, it is not unusual to have a short course on intellectual property and competition policies; intellectual property and information and communication technologies; or the protection of genetic resources, traditional knowledge, and traditional cultural expressions.

The drawback of the third approach, however, is what commentators have described as the "silo effect."[34] Under this arrangement, the knowledge the participants of training and educational programs acquire will be heavily compartmentalized. Many of these participants may have a difficult time understanding how the new issues interact with the different components of the larger intellectual property system. Some may not have time and resources to attend many courses, while others may find the additional courses somewhat irrelevant to their work.

In sum, there are at least three different approaches to covering development-related issues in training and educational programs that are consistent with the principles and goals recognized in the WIPO Development Agenda. Each approach has its strengths and weaknesses. Because the Development Agenda emphasizes the

33. *See* WIPO, *Course Catalog*, http://wipo.int/academy/en/courses/rp_catalog/index.jsp (last visited Sept. 7, 2012) (providing an up-to-date list of WIPO courses).

34. *See* Richard E. Levy & Robert L. Glicksman, *Agency-Specific Precedents*, 89 TEX. L. REV. 499, 510, nn.75–76 (2011) (providing sources discussing the "silo effect" or "information silos").

importance of country-specific, context-sensitive approaches,[35] this article does not seek to provide any top-down recommendations on what approach would best serve development objectives. Instead, the article invites the organizers of training and educational programs to use bottom-up approaches to develop programs based on local needs, interests, conditions, and priorities.

III. GUIDELINES FOR REDESIGNING TRAINING AND EDUCATIONAL PROGRAMS

Although the WIPO Development Agenda has brought to the fore a new set of issues that can be incorporated into training and educational programs, this article goes further to argue that, if we take seriously the goals and principles recognized in the Development Agenda, we need to go beyond just incorporating development-related issues into the existing materials. We should also consider redesigning the existing programs by focusing on issues that tend to be ignored or get short shrift. To help us redesign these programs, this part outlines five areas that will be important in any program focusing on issues lying at the intersection of intellectual property and development.

A. THE BOTTOM

The Development Agenda states explicitly that technical-assistance programs have to be "development-oriented, demand-driven . . . and country specific."[36] Thus, instead of taking a top-down approach, trying to determine what intellectual property issues will be important to promote development objectives, it is important to embrace a bottom-up approach that uses local needs, interests, conditions, and priorities as the starting point.

Many of the existing programs, for example, cover the fundamentals of the intellectual property system, which range from

35. *See* 45 Adopted Recommendations, *supra* note 2, recommendation 1 ("[D]esign, delivery mechanisms and evaluation processes of technical assistance programs should be country specific."); de Beer & Oguamanam, *supra* note 10, at 40 ("[A]s the WIPO Academy and other training and education providers engage or co-opt national agencies . . . , there is a need to integrate the imperative for a context-sensitive curriculum that responds to national contingencies in the area of IP and development.").

36. 45 Adopted Recommendations, *supra* note 2, recommendation 1.

copyrights to trademarks and from patents to trade secrets. If international intellectual property treaties are included, the programs tend to focus on key conventions and agreements, such as the Paris Convention, the Berne Convention, the Madrid Agreement and Protocol, the Hague Agreement, the Lisbon Agreement, the Rome Convention, the Patent Cooperation Treaty, the TRIPS Agreement, and the WIPO Internet Treaties.[37]

With respect to developing countries, however, it is worth questioning whether such an approach is ideal. For example, many of these countries are likely to receive substantial benefits from the protection of traditional knowledge and cultural expressions, geographical indications, utility models, and industrial designs. Indeed, the development of sub-patentable inventions has been historically demonstrated to be a successful tool for developing countries to catch up with their more developed counterparts—Japan being a very good example.[38] Developing countries have also been quite successful in exploiting traditional medicines and practices[39] and sequential and cumulative innovation (as opposed to path-breaking innovation enshrined in the existing international intellectual property system).[40] Thus, it is important to ask not only

37. *See* Peter K. Yu, *Teaching International Intellectual Property Law*, 52 ST. LOUIS U. L.J. 923, 926–27 (2008).

38. *See generally* Hiroyuki Odagiri et al., *IPR and the Catch-Up Process in Japan*, *in* INTELLECTUAL PROPERTY RIGHTS, DEVELOPMENT, AND CATCH-UP: AN INTERNATIONAL COMPARATIVE STUDY 95 (Hiroyuki Odagiri et al. eds., 2010) (examining how Japan caught up in the field of intellectual property and technological development).

39. *See* Nitya Nanda & Ritu Lodha, *Making Essential Medicines Affordable to the Poor*, 20 WIS. INT'L L.J. 581, 586 (2002) ("In developing countries, up to 80 percent of the population relies on traditional medicine to meet its health-care needs."); *see also* CARLOS M. CORREA, PROTECTION AND PROMOTION OF TRADITIONAL MEDICINE IMPLICATIONS FOR PUBLIC HEALTH IN DEVELOPING COUNTRIES (2002), *available at* http://apps.who.int/medicinedocs/pdf/s4917e/s4917e.pdf (discussing the legal issues concerning traditional medicine).

40. *See* Peter K. Yu, *Intellectual Property and Asian Values*, 16 MARQ. INTELL. PROP. L. REV. 329, 389–92 (2012) (noting that many Asian countries have embraced sequential and cumulative innovations); *see also* Odagiri et al., *supra* note 38, at 126 ("In indigenous sectors with mostly tiny firms [in Japan], many innovations occur in the form of practical devices rather than pure inventions."); Jerome H. Reichman, *Intellectual Property in the Twenty-First Century: Will the Developing Countries Lead or Follow?*, 46 HOUS. L. REV. 1115, 1124 (2009) (distinguishing between "cumulative and sequential innovation" and "path-breaking innovation" and noting that "how to protect cumulative and sequential

what type of intellectual property rights training and educational programs should cover, but also what type of rights would be the most useful to the participants.

Moreover, some important topical issues and problem areas warrant extended treatment. For example, given the widespread HIV/AIDS, tuberculosis, and malaria pandemics in sub-Saharan Africa, instructors for training and educational programs in the region likely will have to spend a tremendous amount of time covering issues concerning the relationship between the patent system and access to essential medicines.[41] At times, it may also be useful to consider the special needs of local industries (for example, which sectors are fast-growing in the country?[42]) and local policymakers (for example, which issues are likely to be raised in bilateral, plurilateral, and regional negotiations?[43]).

innovation—as distinct from path-breaking innovation—becomes an ever more pressing problem as more small- and medium-sized firms acquire a taste and capacity for such innovation"). *See generally* SUZANNE SCOTCHMER, INNOVATION AND INCENTIVES 127–59 (2006) (discussing sequential innovation and the need to protect cumulative innovators).

41. For discussions of TRIPS developments in relation to access to medicines, see generally NEGOTIATING HEALTH: INTELLECTUAL PROPERTY AND ACCESS TO MEDICINES (Pedro Roffe et al. eds., 2005) [hereinafter NEGOTIATING HEALTH]; Frederick M. Abbott, *The WTO Medicines Decision: World Pharmaceutical Trade and the Protection of Public Health*, 99 AM. J. INT'L L. 317 (2005); Peter K. Yu, *The International Enclosure Movement*, 82 IND. L.J. 827 (2007).

42. *See* Yu, *supra* note 13, at 25–27 (noting that the varied paces at which different industries develop have made it difficult for all industrial sectors to simultaneously benefit from strong intellectual property protection); *see also* UNCTAD–ICTSD, RESOURCE BOOK ON TRIPS AND DEVELOPMENT 127 (2005) ("[S]ectors of vital importance [referred to by Article 8.1 of the TRIPS Agreement] may vary from country to country and region to region, and the provision is not limited to implementation by developing countries.").

43. *See, e.g.*, INTELLECTUAL PROPERTY AND FREE TRADE AGREEMENTS (Christopher Heath & Anselm Kamperman Sanders eds., 2007) (collecting articles discussing free trade agreements in the intellectual property context); Robert Burrell & Kimberlee Weatherall, *Exporting Controversy? Reactions to the Copyright Provisions of the U.S.–Australia Free Trade Agreement: Lessons for U.S. Trade Policy*, 2008 U. ILL. J.L. TECH. & POL'Y 259 (criticizing the U.S.–Australia Free Trade Agreement); Jean-Frédéric Morin, *Multilateralizing TRIPs-Plus Agreements: Is the US Strategy a Failure?*, 12 J. WORLD INTELL. PROP. 175 (2009) (examining the United States' free trade agreement strategy); Pedro Roffe et al., *Intellectual Property Rights in Free Trade Agreements: Moving Beyond TRIPS Minimum Standards*, *in* RESEARCH HANDBOOK ON THE PROTECTION OF INTELLECTUAL PROPERTY UNDER WTO RULES 266 (Carlos M.

In addition, it may be important to discuss issues concerning the establishment of intellectual property or technology transfer offices, especially under constrained budgets and with limited capacities.[44] It is also worth discussing the strengths and weaknesses of developing specialized courts in the intellectual property area.[45] Although commentators and economists have rightly noted the high costs of building infrastructure and establishing institutions, it is worth noting that low-cost, streamlined models exist for the development and operation of intellectual property offices.[46] These offices, for example, can be funded by user fees or supported through outsourcing arrangements.[47]

Thus, it is important for training and educational programs to identify the different institutional options available to the participants. The more affordable the acquisition of intellectual property rights is, the more local people can get the benefits of the intellectual property system, and the more developing countries can harness that system to promote development objectives. A reduced operating budget will also help developing countries retain scarce

Correa ed., 2010) (discussing free trade agreements in relation to the TRIPS framework); Peter K. Yu, *Sinic Trade Agreements*, 44 U.C. DAVIS L. REV. 953, 961–86 (2011) (critically examining the strengths and weaknesses of bilateral, plurilateral, and regional trade agreements).

44. *See generally* INTELLECTUAL PROPERTY MANAGEMENT IN HEALTH AND AGRICULTURAL INNOVATION: A HANDBOOK OF BEST PRACTICES 537–672 (Anatole Krattiger et al. eds., 2007) [hereinafter HANDBOOK OF BEST PRACTICES] (providing a collection of articles examining the establishment, organization, and operation of technology transfer offices).

45. *See* JOHN CROSS ET AL., GLOBAL ISSUES IN INTELLECTUAL PROPERTY LAW 40–46 (2010) (providing a comparison between general courts and specialized intellectual property courts).

46. *See, e.g.*, COMM'N ON INTELLECTUAL PROP. RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 145–46 (2002) [hereinafter IPR COMMISSION REPORT] (providing recommendations concerning how intellectual property administration agencies in developing countries can meet their operating costs); ROBERT M. SHERWOOD, INTELLECTUAL PROPERTY AND ECONOMIC DEVELOPMENT 181–85 (1990) (discussing low-cost options to establish an intellectual property system and the use of user fees to offset operating costs); Sean A. Pager, *Patents on a Shoestring: Making Patent Protection Work for Developing Countries*, 23 GA. ST. U. L. REV. 755 (2007) (discussing alternative ways to structure the patent system in developing countries).

47. *See* Peter K. Yu, *Enforcement, Economics and Estimates*, 2 WIPO J. 1, 2 (2010) (suggesting that developing countries can build low-cost intellectual property systems with user fees, outsourcing, or streamlined operations).

economic and human resources for other competing public needs.

B. THE FLIP SIDE

Traditional intellectual property training and educational programs tend to focus on the *rights* recognized by international treaties and national laws. Limitations and exceptions, however, are not always emphasized. Equally ignored are the obligations of rights holders[48]—for example, those obligations concerning anti-competitive practices. The omission of these two sets of issues is particularly disturbing. In the intellectual property system, limitations and exceptions are just as important as rights.[49] If the system is to function properly, rights should also be balanced by obligations.

Thus, development-friendly training and educational programs should not only focus on the justifications for and the nature and extent of the rights; they should also detail the available flexibilities within the intellectual property system as well as the policy options that take advantage of these flexibilities. In addition, these programs should provide a critical analysis of the strengths and weaknesses of the available policy options as well as an objective assessment of their costs and benefits. In determining these costs, it is important not to emphasize only economic costs but also social and cultural costs. For many developing countries, the negative social and cultural impacts of an out-of-balance intellectual property system are likely to be quite substantial.[50]

For instance, for training and educational programs conducted in

48. *See* Peter K. Yu, *The Objectives and Principles of the TRIPS Agreement*, 46 HOUS. L. REV. 979, 1035–37 (2009) (discussing the need to identify intellectual property rights holders' obligations and to build obligations, responsibilities, maximum standards, and affirmative rights into the intellectual property system).

49. *See* JAMES BOYLE, SHAMANS, SOFTWARE AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY 138 (1996) (noting that exceptions and limitations are "just as important as the grant of the right itself"); *see also* Graham v. John Deere Co., 383 U.S. 1, 5 (1966) (noting that the intellectual property clause "is both a grant of power and a limitation").

50. *See* IPR COMMISSION REPORT, *supra* note 46, at 4 ("[W]e consider that, if anything, the costs of getting the IP system 'wrong' in a developing country are likely to be far higher than in developed countries. Most developed countries have sophisticated systems of competition regulation to ensure that abuses of any monopoly rights cannot unduly affect the public interest."); Yu, *supra* note 41, at 890 (noting that developing countries lack "resources to put in place mechanisms to correct an out-of-balance intellectual property system").

developing countries, it will be useful to

> emphasize the eligibility requirements for the different forms of intellectual property rights; the non-protection of ideas, procedures, methods of operation, and mathematical concepts in copyright law; the availability of compulsory licensing of patented pharmaceuticals; unrestricted use of generic terms notwithstanding the protection of trademarks; the importance of technical and functional considerations in laws involving trade dresses and industrial designs; permissive limitations and exceptions under the three-step test; remedies for anticompetitive practices, abuse of rights and restraints on trade; and special exemptions that seek to respond to national exigencies.[51]

More specifically in the area concerning public health exigencies, it will be useful to discuss not only the justifications for and the nature and extent of patent rights, but also compulsory licenses; parallel importation; government-use provisions;[52] and the introduction of exceptions for research,[53] early working,[54] and the development of diagnostics.[55] It is also worthwhile to explore the

51. Yu, *supra* note 37, at 932–33.

52. *See* James Love, *Access to Medicine and Compliance with the WTO TRIPS Accord: Models for State Practice in Developing Countries*, *in* GLOBAL INTELLECTUAL PROPERTY RIGHTS: KNOWLEDGE, ACCESS AND DEVELOPMENT 74, 81–83 (Peter Drahos & Ruth Mayne eds., 2002) (discussing the government use provisions in the United States, Italy, Australia, Germany, Malaysia, Singapore, New Zealand, the Philippines, Ireland, Switzerland, and the United Kingdom).

53. *See* Karin Timmermans, *Ensuring Access to Medicines in 2005 and Beyond*, *in* NEGOTIATING HEALTH, *supra* note 41, at 41, 52 (noting the need for "a research exemption"). For discussions of the experimental use exemption, *see generally* Rochelle Dreyfuss, *Protecting the Public Domain of Science: Has the Time for an Experimental Use Defense Arrived?*, 46 ARIZ. L. REV. 457 (2004); Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017 (1989); Janice M. Mueller, *No "Dilettante Affair": Rethinking the Experimental Use Exception to Patent Infringement for Biomedical Research Tools*, 76 WASH. L. REV. 1 (2001); Janice M. Mueller, *The Evanescent Experimental Use Exemption from United States Patent Infringement Liability: Implications for University and Nonprofit Research and Development*, 56 BAYLOR L. REV. 917 (2004); Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81.

54. *See* IPR COMMISSION REPORT, *supra* note 46, at 50 (discussing the importance of the Bolar exception, which "makes it legal for a generic producer to import, manufacture and test a patented product prior to the expiry of the patent in order that it may fulfill the regulatory requirements imposed by particular countries as necessary for marketing as a generic").

55. *See* Agreement on Trade Related Aspects of Intellectual Property Rights

anti-competitive effects of the patent system, an issue that has received longstanding attention from developing countries.[56]

C. THE NEIGHBORS

Today, the discussion of intellectual property law and policy is no longer limited only to developments within the international intellectual property regime. Increasingly, the participants of training and educational programs need to learn about developments in other international regimes, such as those governing public health, human rights, biological diversity, food and agriculture, and information and communications.[57]

To a great extent, the study of intellectual property requires an "intellectual property and . . ." approach that covers neighboring issues that lie outside the intellectual property area.[58] Such a cross-cutting approach is particularly important in light of the continued forum-manipulative activities that both developed and developing countries conduct.[59] These efforts seek to move international

art. 27.3(a), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 (1994) ("Members may . . . exclude from patentability . . . diagnostic, therapeutic and surgical methods for the treatment of humans or animals . . . .").

56. *See* Peter K. Yu, *TRIPS and Its Achilles' Heel*, 18 J. INTELL. PROP. L. 479, 520–21 (2011) (discussing the concerns of Brazil and India over anti-competitive practices, abuse of rights, and restraints on trade at the early stages of the TRIPS negotiations).

57. *See* Peter K. Yu, *A Tale of Two Development Agendas*, 35 OHIO N.U. L. REV. 465, 522–40 (2009) (discussing how developing countries have actively pushed for intellectual property reforms in not only WIPO and the WTO, but also other fora governing public health, human rights, biological diversity, food and agriculture, and information and communications).

58. *See* Yu, *supra* note 37, at 940 ("Whether one likes it or not, the 'law and . . .' movement has finally spread to international intellectual property law, and the subject has become increasingly multidisciplinary.").

59. *See* JOHN BRAITHWAITE & PETER DRAHOS, GLOBAL BUSINESS REGULATION 564–71 (2000) (discussing the use of forum shifting); CHRISTOPHER MAY, THE WORLD INTELLECTUAL PROPERTY ORGANIZATION: RESURGENCE AND THE DEVELOPMENT AGENDA 66 (2007) (discussing "forum proliferation"); Laurence R. Helfer, *Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking*, 29 YALE J. INT'L L. 1 (2004) (discussing the use of "regime shifting"); Viviana Muñoz Tellez, *The Changing Global Governance of Intellectual Property Enforcement: A New Challenge for Developing Countries*, *in* INTELLECTUAL PROPERTY ENFORCEMENT: INTERNATIONAL PERSPECTIVES 3, 9 (Li Xuan & Carlos M. Correa eds., 2009)

discussions to fora that traditionally do not cover intellectual property.

Consider, for example, the protection of genetic resources and traditional knowledge. Such protection is as much about intellectual property as it is about biological diversity. As a result of this overlap, such protection has implicated not only international intellectual property treaties, but also the Convention on Biological Diversity[60] and the International Treaty on Plant Genetic Resources for Food and Agriculture[61] (which was negotiated under the auspices of the Food and Agriculture Organization).

Even more complicated, because of the close relationship between the protection of genetic resources and traditional knowledge and that of indigenous rights, one has to pay special attention to rights articulated in the Declaration on the Rights of Indigenous Peoples,[62] the Convention on the Safeguarding of Intangible Cultural Heritage,[63] and the Convention on the Protection and Promotion of the Diversity of Cultural Expressions.[64] One also has to pay attention to the fact that indigenous peoples often do not have sufficient representation in the negotiation of many of the existing international treaties.[65]

(discussing "multiple forum capture"); Yu, *supra* note 13, at 13–21 (discussing the development of the "international intellectual property regime complex").

60. Convention on Biological Diversity, *opened for signature* June 5, 1992, 1760 U.N.T.S. 143, S. Treaty Doc. No. 103-20.

61. International Treaty on Plant Genetic Resources for Food and Agriculture, Nov. 3, 2001, *available at* ftp://ftp.fao.org/docrep/fao/011/i0510e/i0510e.pdf.

62. United Nations Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, U.N. Doc. A/RES/61/295 (Sept. 13, 2007).

63. Convention for the Safeguarding of the Intangible Cultural Heritage, Oct. 17, 2003, U.N. Doc. MISC/2003/CLT/CH/14, *available at* http://unesdoc.unesco.org/images/0013/001325/132540e.pdf.

64. Convention on the Protection and Promotion of the Diversity of Cultural Expressions, Oct. 20, 2005, U.N. Doc. CLT-2005/CONVENTION DIVERSITE-CULT REV., *available at* http://unesdoc.unesco.org/images/0014/001429/142919e.pdf.

65. As Rosemary Coombe noted:

> Although indigenous peoples are now recognized as key actors in this global dialogue, it will need to be expanded to encompass a wider range of principles and priorities, which will eventually encompass political commitments to indigenous peoples' rights of self-determination. Only when indigenous peoples are full partners in this dialogue, with full juridical standing and only when . . . their cultural world views, customary laws, and ecological practices are recognized as fundamental contributions to

In addition, one needs to be mindful of the human rights interests protected under the Universal Declaration of Human Rights;[66] the International Covenant on Civil and Political Rights;[67] and the International Covenant on Economic, Social and Cultural Rights.[68] General Comment Nos. 17 and 21, the two interpretive comments authored by the Committee on Economic, Social and Cultural Rights, also provide important normative guidance on the development of intellectual property rights and the protection of genetic resources and traditional knowledge.[69]

Within the larger picture of intellectual property and development, it may be useful to examine intellectual property issues in light of the U.N. Millennium Development Goals.[70] Indeed, recommendation 22

resolving local social justice concerns will we be engaged in anything we can genuinely call a dialogue.

Rosemary J. Coombe, *The Recognition of Indigenous Peoples' and Community Traditional Knowledge in International Law*, 14 ST. THOMAS L. REV. 275, 284–85 (2001); *accord* Tom Greaves, *IPR, A Current Survey*, *in* INTELLECTUAL PROPERTY RIGHTS FOR INDIGENOUS PEOPLES, A SOURCEBOOK 1, 14 (Tom Greaves ed., 1994) ("In most African states, . . . the larger tribal societies sees [sic] themselves as rightful elements of the nation's government. Owning their cultural knowledge is not the issue, owning a share of the central government is."); *see also* KEITH AOKI, SEED WARS: CONTROVERSIES AND CASES ON PLANT GENETIC RESOURCES AND INTELLECTUAL PROPERTY 107 (2008) (noting "internal disparities between ruling elites and traditional communities"); Dean B. Suagee, *The Cultural Heritage of American Indian Tribes and the Preservation of Biological Diversity*, 31 ARIZ. ST. L.J. 483, 488 (1999) (arguing that "the most effective way to make use of their traditional ecological knowledge is to recognize the rights of indigenous peoples to govern their own territories").

66. Universal Declaration of Human Rights, G.A. Res. 217 (III) A, U.N. Doc A/RES/217(III) (Dec. 10, 1948).

67. International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171, S. Treaty Doc. 95-20.

68. International Covenant on Economic, Social and Cultural Rights, Dec. 16, 1966, 993 U.N.T.S. 3, S. Treaty Doc. 95-19.

69. Comm. on Econ., Soc. & Cultural Rights, *General Comment No. 17: The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He or She Is the Author (Article 15, Paragraph 1(c), of the Covenant)*, U.N. Doc. E/C.12/GC/17 (Jan. 12, 2006) [hereinafter *General Comment No. 17*]; Comm. on Econ., Soc. & Cultural Rights, *General Comment No. 21: Right of Everyone to Take Part in Cultural Life (Art. 15, Para. 1(a), of the International Covenant on Economic, Social and Cultural Rights)*, U.N. Doc. E/C.12/GC/21 (Dec. 21, 2009).

70. The eight Millennium Development Goals are: (1) eradicate extreme poverty and hunger; (2) achieve universal primary education; (3) promote gender equality and empower women; (4) reduce child mortality; (5) improve maternal

states specifically that "WIPO's norm-setting activities should be supportive of the development goals agreed within the United Nations system, including those contained in the Millennium Declaration."[71] This recommendation draws on the fact that WIPO is a U.N. specialized agency.[72] As such, the agency's work should promote the development goals of the larger intergovernmental organization.

Finally, because of the ever-expanding scope of intellectual property rights and the ability for these rights to spill over into other areas of international regulation,[73] intellectual property training and educational programs should feature inter- and multi-disciplinary perspectives. Many of the existing programs focus primarily on the legal aspects of intellectual property. However, it is increasingly important to consider other aspects of intellectual property, such as political, economic, social, and cultural.[74] Indeed, recommendation 45 states explicitly the need to "approach intellectual property enforcement in the context of broader societal interests and especially development-oriented concerns."[75]

If intellectual property is to become a catalyst for development, understanding how to exploit intellectual property rights (for

health; (6) combat HIV/AIDS, malaria, and other diseases; (7) ensure environmental sustainability; and (8) develop a global partnership for development. *See Millennium Development Goals*, UNITED NATIONS, http://www.un.org/millenniumgoals/ (last visited Sept. 10, 2012).

71. 45 Adopted Recommendations, *supra* note 2, recommendation 22.

72. *See* Yu, *supra* note 57, at 484–93 (discussing the formation of WIPO as a specialized agency of the United Nations).

73. As I wrote earlier:

> While the establishment of the TRIPs Agreement and the emergence of new technologies has greatly transformed the international intellectual property system, the new developments have also brought to the course many complex issues that are generally not covered in the traditional international intellectual property law curriculum. . . . In other words, the international intellectual property law course is not just about international intellectual property law or global intellectual property law, but global intellectual property law plus its ancillary areas.

Yu, *supra* note 37, at 940; *see also* de Beer & Oguamanam, *supra* note 10, at 38 (calling for a "continued expansion of the current interdisciplinary approach to include not just law, business, economics, engineering and sciences, but also anthropologists, sociologists and especially political scientists").

74. *The WIPO Journal*, for example, has embraced this approach. The first four special issues focus on law, economics, politics, and culture, respectively.

75. 45 Adopted Recommendations, *supra* note 2, recommendation 45.

example, licensing models and business strategies) will be as important as understanding how to comply with laws and treaty obligations. Indeed, the more interdisciplinary the perspectives that participants can acquire from training and educational programs, the more likely they will be able to come up with strategies and solutions that are tailored to local needs, interests, conditions, and priorities.

Developing countries and commentators sympathetic to these countries have widely criticized the existing intellectual property system for its bias toward developed countries, which created this system more than a century ago.[76] Unlike these standards, however, licensing models and business strategies can be beneficial to *any* country that has valuable intellectual property assets. Thus, by developing a better and more sophisticated understanding of these models and strategies, participants from developing countries will be able to derive greater benefits from what Michael Finger and Philip Schuler described as "poor people's knowledge."[77] They will also be better prepared to take advantage of any future beneficial adjustments to the existing intellectual property standards.

D. THE ELEPHANTS

Because of the significant power asymmetry between developed and developing countries, the weaker countries often have to take into consideration the policies and approaches adopted by more powerful countries. It is therefore important to identify the models practiced by developed and emerging countries and assess their strengths and weaknesses in light of specific local conditions.[78]

In doing so, the participants of training and educational programs will be able to obtain information about what policy measures could help them catch up with countries in the developed world.[79] The

76. *See* Peter K. Yu, *Currents and Crosscurrents in the International Intellectual Property Regime*, 38 LOY. L.A. L. REV. 323, 330–54 (2004) (discussing the origins of the international intellectual property system).

77. POOR PEOPLE'S KNOWLEDGE: PROMOTING INTELLECTUAL PROPERTY IN DEVELOPING COUNTRIES (J. Michael Finger & Philip Schuler eds., 2004).

78. *See, e.g.*, Yu, *supra* note 40, at 378–98 (identifying ten prominent issues on the intellectual property policy agenda of Asian developing countries).

79. *See generally* Odagiri et al., *supra* note 38 (providing an excellent collection of articles discussing how countries catch up in the field of intellectual property and technological development).

participants will also be able to better anticipate future changes in the international intellectual property regime, which are often fostered through norm-setting activities in the multilateral forum or through the establishment of bilateral, plurilateral, or regional trade agreements.

For participants from the developing world, it is important to understand not only the positions taken by the United States and the European Union, but also large developing countries, such as Brazil, China, and India.[80] The latter, especially China, have been increasingly active in Africa[81] and Latin America.[82] In the near future, their models will likely be quite influential in these continents.[83]

Finally, a better understanding of the different positions taken by powerful, developed countries and large developing countries may help increase the policy options available to participants from smaller developing countries. To begin with, the participants of training and educational programs can draw on lessons from developed and large developing countries to determine for themselves which model best suits their local conditions.

Although commentators tend to analyze intellectual property issues along the North–South divide, it is worth remembering that developed countries have significant disagreements among themselves. Consider the United States and the European Union, for example. Thus far, commentators have reported wide disagreements between these two trading powers over the treatment of moral

80. *See generally* Peter K. Yu, *The Middle Intellectual Property Powers*, *in* LAW AND DEVELOPMENT IN MIDDLE-INCOME COUNTRIES (Tom Ginsburg & Randall Peerenboom eds., forthcoming 2013) (discussing intellectual property developments in large developing countries).

81. For discussions of China's engagement with African countries, see sources cited in Peter K. Yu, *The Rise and Decline of the Intellectual Property Powers*, 34 CAMPBELL L. REV. 525 (2012).

82. For discussions of China's engagement with countries in Latin America, see generally CHINA'S EXPANSION INTO THE WESTERN HEMISPHERE: IMPLICATIONS FOR LATIN AMERICA AND THE UNITED STATES (Riordan Roett & Guadalupe Paz eds., 2008); R. EVAN ELLIS, CHINA IN LATIN AMERICA: THE WHATS AND WHEREFORES (2009); KEVIN P. GALLAGHER & ROBERTO PORZECANSKI, THE DRAGON IN THE ROOM: CHINA AND THE FUTURE OF LATIN AMERICAN INDUSTRIALIZATION (2010).

83. *See* Yu, *supra* note 43, at 1020–22 (discussing the attractiveness of the Chinese model in Africa and other parts of the developing world).

rights[84] and geographical indications.[85] As shown by the recent negotiation of ACTA, these two powers also strongly disagree over whether criminal measures should be extended to patent infringement.[86]

If those differences are not enough, the United States has embraced a broad fair-use privilege in its copyright law,[87] leading to the emergence of a large number of innovative technology start-ups. Meanwhile, European policymakers and commentators continue to question whether such a broad interpretation of exceptions to copyright would satisfy the three-step test in the Berne Convention and the TRIPS Agreement.[88]

More importantly for developing countries, identifying the divergent approaches that powerful, developed countries take and the tension resulting from such divergence will help them fight off foreign pressure. After all, it is much easier to reject standards that are still contested in the developed world than those that have already been harmonized among the major trading powers.

Understanding the differences among developed countries will therefore help the participants of training and educational programs avoid transplanting foreign models that are unsuitable to local conditions.[89] Even better, such knowledge will help prevent

84. *See* Peter K. Yu, *Moral Rights 2.0*, *in* LANDMARK INTELLECTUAL PROPERTY CASES AND THEIR LEGACY 13, 13–15 (Christopher Heath & Anselm Kamperman Sanders eds., 2011) (noting the different treatments of moral rights by the United States and continental Europe).

85. *See* Justin Hughes, *Champagne, Feta, and Bourbon: The Spirited Debate About Geographical Indications*, 58 HASTINGS L.J. 299, 305–11 (2006) (discussing the two different approaches the European Union and the United States have used to protect geographical indications).

86. *See* Yu, *ACTA and Its Complex Politics*, *supra* note 14, at 11 (noting the strong disagreement between the European Union and the United States over criminal enforcement of patent rights); *see also* Yu, *Six Secret Fears*, *supra* note 14, at 984 ("As far as criminal enforcement of intellectual property rights is concerned, the European Union might have been even more eager than the United States to establish an international standard, due in large part to its continued struggle to establish a community-wide criminal enforcement directive.").

87. 17 U.S.C. § 107 (2006) (codifying the fair-use privilege).

88. *See* Ruth Okediji, *Toward an International Fair Use Doctrine*, 39 COLUM. J. TRANSNAT'L L. 75, 115 (2000) (noting that "several trading partners requested clarification of the fair use doctrine" from the United States during the TRIPS Council's review of enforcement legislation in 1997).

89. *See* Yu, *Six Secret Fears*, *supra* note 14, at 1035–38 (discussing how the

developing countries from committing to conflicting obligations demanded by their more powerful trading partners through bilateral, plurilateral, or regional agreements.[90]

E. THE VISIONARY

Different countries have different historical traditions, political arrangements, social and economic priorities, cultural values, and legal philosophies. It is therefore no surprise that countries also have very different intellectual property systems. Although the international intellectual property regime is built upon harmonized minimum international standards, these standards do not work for every developing country. Nor do they reflect all the available policy options. As a result, it is important for the participants of training and educational programs to learn about the different standards, policy options, and innovation models that are suitable to local conditions.

While the WIPO Development Agenda has repeatedly emphasized the need for country-specific, context-sensitive models, developing those models is not always easy.[91] Indeed, it can be rather difficult and costly to come up with new alternative models that differ significantly from those practiced in developed and large developing countries.[92] Thus, training and educational programs should use best

transplant of laws from economic partnership agreements or free trade agreements could harm developing countries).

90. *See* Peter K. Yu, *TRIPS and Its Discontents*, 10 MARQ. INTELL. PROP. L. REV. 369, 407 (2006) ("An understanding of the tension between the European Communities and the United States will also prevent them from committing to conflicting obligations under the free trade agreements.").

91. For example, Ricardo Meléndez-Ortiz listed some of the challenging and complex questions one should ask in relation to intellectual property training and teaching activities:

> Should IP training and teaching activities be the same for audiences in developed countries and in developing countries? Should they be the same in all developing countries? How can they take into consideration differences in levels of development and in socio-economic circumstances? What is the best way to give effect to the letter, and more importantly the *spirit*, of the relevant [WIPO Development Agenda] recommendations dealing with IP training and education activities in the overall context of technical assistance?

Meléndez-Ortiz, *supra* note 10, at vi.

92. In a recent article questioning whether developing countries should lead or follow, Jerome Reichman provided a very helpful list detailing the various options these countries should adopt to build their own comparative advantages and thereby achieve leadership in the knowledge economy. *See* Reichman, *supra* note

efforts to provide information about these alternative models, with additional assessments on both the models' strengths and weaknesses.

In the area of access to essential medicines, for example, it is insufficient for training and educational programs to identify only exceptions and limitations (although such identification remains very important). These programs should also highlight the different non–property based models that can help promote creativity and innovation. Examples of these models are those relying on grants, subsidies, prizes, advance market commitments, reputation gains, open and collaborative models, patent pools, public-private partnerships, and equity-based systems built upon liability rules.[93]

In addition, training and educational programs should inform the participants about the different ways of interpreting the standards laid down in international agreements. Because norms are usually political compromises struck by negotiating parties, they are often open to widely different interpretations. Notwithstanding these flexibilities, many developing countries unfortunately do not have the needed resources, capacity, and political clout to come up with alternative interpretations.[94] Training and educational programs should therefore provide this much-needed assistance.

Consider, for example, the international obligations concerning the enforcement of intellectual property rights. It is important to learn how to comply with these obligations, including the minimum standards, optional requirements, and best practices among developed countries. The programs should also cover alternative ways to conceptualize the existing enforcement obligations.[95] For

40, at 1132–63. Nevertheless, many of these options clearly originate from developed countries, either as past or rejected measures. One therefore cannot help but wonder whether developing countries could actually come up with their own indigenous models.

93. *See* Peter K. Yu, *Intellectual Property and Human Rights in the Nonmultilateral Era*, 64 FLA. L. REV. 1045, 1078 (2012).

94. *See* Peter K. Yu, *Access to Medicines, BRICS Alliances, and Collective Action*, 34 AM. J.L. & MED. 345, 386 (2008) [hereinafter *Access to Medicines*] (noting the "lack of resources, expertise, leadership, negotiation sophistication, or bargaining power" in developing countries).

95. *See* Yu, *supra* note 47, at 17 (raising the question whether enforcement should "be reconceptualised by taking account of *both* rights and responsibilities—for example, by focusing on abuse of rights or restraint on trade in addition to

example, how should the participants reconceptualize intellectual property enforcement? Should they take account of *both* rights and responsibilities? Should they focus on anti-competitive practices, abuse of rights, and restraints on trade? Are there other internationally acceptable enforcement measures not practiced by developed countries and major intellectual property exporting countries?

Finally, if the intellectual property system is to promote development objectives, it needs to be viewed as a component of a larger innovation system.[96] The participants of training and educational programs need to understand the interplay between intellectual property rights and other complementary factors.

For instance, Keith Maskus has identified several non–intellectual property factors that could play significant roles in attracting foreign direct investment: public and private investments in education and training; the removal of impediments to the acquisition of human capital; the development of national innovation systems that promote dynamic competition; support for basic research capabilities; the removal of disincentives for applied research and development and commercialization; the institution of incentive structures to stimulate local innovation; and efforts to take greater advantage of access to scientific and technical information existing online or elsewhere.[97]

In the area of technology transfer, Professor Maskus has further identified a wide variety of complementary factors: the movement of newly trained labor among enterprises; the laying out of patents; product innovation through the legitimate "inventing around" of

protection of right holders").

96. *See* Daniel J. Gervais, *TRIPS and Development*, *in* INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A TRIPS PLUS ERA 3, 4 (Daniel J. Gervais ed., 2007) [hereinafter INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT] (stating that an intellectual property system should be "viewed as forming part of a broader set of measures designed to optimize knowledge development and utilization," which, in turn, "enhance[s] economic growth, cultural prosperity, and human development"); Peter K. Yu, *Intellectual Property and the Information Ecosystem*, 2005 MICH. ST. L. REV. 1, 15 (stating that intellectual property laws and policies "constitute only one of the many components of the information ecosystem").

97. *See* Keith E. Maskus, *The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer*, 9 DUKE J. COMP. & INT'L L. 109, 151 (1998).

patents and copyrights; the adoption of newer and more efficient specialized inputs to reduce production costs; the introduction of efficient and competitive international enterprises; increasing competition and rising demands for subcontracting; access to a wider variety of specialized products, inputs, and technologies; a deeper and better-trained skilled labor pool; and rising real wages.[98]

In my earlier works, I also noted the importance of creating an enabling environment for effective intellectual property enforcement.[99] Among the key preconditions for successful intellectual property law reforms are "a consciousness of legal rights, respect for the rule of law, an effective and independent judiciary, a well-functioning innovation and competition system, sufficiently-developed basic infrastructure, a critical mass of local stakeholders, and established business practices."[100]

Thus, successful training and educational programs should identify the role the intellectual property system will play in promoting creativity and innovation while fostering development. They should also provide knowledge about how the system interacts with other complementary factors, thereby allowing the participants to understand the full spectrum of policy options available for promoting development objectives.

IV. THE NEED FOR A DIVERSE SET OF SKILLS AND PERSPECTIVES

In addition to imparting knowledge, values, and perspectives, a key goal of training and educational programs is to inculcate in the participants a set of specialized skills and analytical perspectives. The adoption of the WIPO Development Agenda requires us to rethink not only the contents delivered through these programs, but also the specialized skills and perspectives the programs seek to develop. This part focuses on five different skills and perspectives, broadly defined, that may be useful for promoting the development dimension of the intellectual property system.

98. *See id.* at 146.

99. *See* Peter K. Yu, *Intellectual Property, Economic Development, and the China Puzzle*, *in* INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT, *supra* note 96, at 213–16.

100. Yu, *supra* note 56, at 500.

A. NEGOTIATION SKILLS

Negotiation skills are of paramount importance whether one is a policymaker, a business executive, a patent attorney, a licensing officer, a technology transfer manager, or an owner of valuable intellectual property assets.[101] At the macro level, government officials constantly have to negotiate with their foreign counterparts over what intellectual property standards their countries need to adopt. While the multilateral process allows developing countries to enhance bargaining power by building coalitions, these countries can become highly vulnerable in bilateral and regional negotiations. The development of strong negotiation skills is therefore badly needed to overcome their lack of bargaining leverage in nonmultilateral discussions.

At the micro level, negotiation skills are also very important. In the area of protection for genetic resources and traditional knowledge, for example, informed consent and benefit-sharing obligations are often fulfilled through the establishment of material transfer agreements.[102] As important as these agreements are, they are likely to be of limited effectiveness if the relevant parties from developing countries do not have the requisite skills to negotiate for suitable arrangements.

Moreover, although litigation remains an important part of intellectual property law practice, most disputes are settled in courts and resolved through negotiations. Oftentimes, the negotiation of these settlements entails not only intellectual property lawyers but also non-law practitioners. These practitioners tend to have a deep understanding of the industry as well as the various competitive advantages, constraints, and challenges confronting the affected

101. *See, e.g.*, MICHAEL A. GOLLIN, DRIVING INNOVATION: INTELLECTUAL PROPERTY STRATEGIES FOR A DYNAMIC WORLD 312 (2008) ("The ability to conclude a technology transfer agreement or to settle an enforcement action may be limited by negotiation differences. Also, copyright licensing organizations active in most developed countries allow for negotiation of a single blanket license for many properties, whereas in other countries, individual agreements must be negotiated for each copyright work.").

102. *See* Alan B. Bennett et al., *Specific Issues with Material Transfer Agreements*, in HANDBOOK OF BEST PRACTICES, *supra* note 44, at 697 (discussing material transfer agreements in relation to the exploitation and transfer of tangible biological materials).

parties. It is therefore important for training and educational programs to help the participants develop strong negotiation skills.

B. ECONOMIC ANALYSIS

Empirical research is one of the key focuses of the WIPO Development Agenda. Cluster D, for example, consists of recommendations focusing on assessment, evaluation, and impact studies.[103] Similar studies have also been widely embraced in the areas of human rights, public health, and biological diversity.[104] In addition, WIPO recently brought in Carsten Fink, an established expert in international economics, to serve as its first Chief Economist. Since its establishment a few years ago, the new Economics and Statistics Division has put together a wide variety of seminars and publications, including most notably the *World Intellectual Property Report*.[105]

Thus far, developing countries have a very limited pool of homegrown economists who can provide the needed assessment on the intellectual property system.[106] The analysis becomes even more

103. *See* 45 Adopted Recommendations, *supra* note 2, cluster D (including "Assessment, Evaluation and Impact Studies" as one of the six clusters of recommendations WIPO adopted as part of its Development Agenda).

104. *See, e.g.*, *General Comment No. 17*, *supra* note 69, ¶ 35 ("States parties should . . . consider undertaking human rights impact assessments prior to the adoption and after a period of implementation of legislation for the protection of the moral and material interests resulting from one's scientific, literary or artistic productions."); Convention on Biological Diversity, *supra* note 60, art. 14(1)(a) (requiring contracting parties to "[i]ntroduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures"); COMM'N ON INTELLECTUAL PROP. RIGHTS, INNOVATION & PUB. HEALTH, WORLD HEALTH ORG., PUBLIC HEALTH, INNOVATION AND INTELLECTUAL PROP. RIGHTS 10 (2006) (stating that "health policies, as well as inter alia those addressing trade, the environment and commerce, should be equally subject to assessments as to their impact on the right to health"); JAMES HARRISON, THE HUMAN RIGHTS IMPACT OF THE WORLD TRADE ORGANISATION 228 (2007) ("Systematic environmental assessments of trade agreements are relatively common. Norway, the US and Canada all carry out reviews of the environmental impact of trade policies which include some international impact assessment, as do the United Nations Environment Programme and World Wildlife Fund.").

105. WIPO, 2011 WORLD INTELLECTUAL PROPERTY REPORT: THE CHANGING FACE OF INNOVATION (2011).

106. As Keith Maskus, Sean Dougherty, and Andrew Mertha observed in the

complicated when the assessment has to take account of such factors as trade flows, foreign direct investment, and diffusion of technology. Oftentimes, policymakers from developing countries have to rely on assistance from the outside or data supplied by industries or nongovernmental organizations.

Even if we ignore the widely documented flaws regarding industry data, data supplied by self-interested parties—whether industries or nongovernmental organizations—are hardly impartial.[107] As a result, it is important for training and educational programs to help facilitate independent economic research in the intellectual property area. At the very least, the programs should equip the participants with better analytical skills to judge for themselves the accuracy, relevancy, and implications of the data supplied by third parties.

The ability to engage in economic analysis is equally important at the micro level. How well a business or licensing model will perform depends ultimately on the economics within the relevant sector. Indeed, with the increasing roles intellectual property rights play in today's knowledge-based economy, it is no longer sufficient to study laws and policies alone. It is also important to better understand the economic implications of these laws and policies as well as those of the alternative policy options.

C. BUSINESS INSIGHTS

A successful intellectual property system depends on the existence of viable and sustainable business models that help facilitate the

Chinese context:

> University scholarship in China (and in other countries) in IPRs [intellectual property rights] is overwhelmingly addressed to legal issues. Many scholars are actively involved in assessing shortcomings in the law and in drafting revisions, and they also participate in training new intellectual property lawyers. Few economists study the processes of technical change in China and how they are affected by market structure, competition, and exposure to foreign technologies and investment. Fewer still examine the relationship between IPRs, technical development, and growth. Accordingly, economists in China either remain unaware of IPR issues or are skeptical about the potential for IPRs to increase technological advance and business development.

Keith E. Maskus et al., *Intellectual Property Rights and Economic Development in China*, *in* INTELLECTUAL PROPERTY AND DEVELOPMENT: LESSONS FROM RECENT ECONOMIC RESEARCH 295, 311 (Carsten Fink & Keith E. Maskus eds., 2005).

107. *See* Yu, *supra* note 47, at 7–8 (discussing the challenge to obtaining impartial data concerning the extent of piracy and counterfeiting).

acquisition, exploitation, commercialization, management, and transfer of intellectual property rights. To a large extent, intellectual property laws can be viewed as business regulations that have significant impacts on competition, market structure, and consumer choices.[108]

Thus far, training and educational programs have focused primarily on the compliance aspects of intellectual property protection. There is indeed a great need for programs identifying business models that work well for the unique conditions in developing countries. At the macro level, it would also be helpful to identify models that allow developing countries to pool together limited resources to create economies of scale and scope and to provide a greater aggregate market.[109]

Notwithstanding the importance of locating business models suitable to developing countries, few programs thus far have focused on identifying these models. The lack of such a focus is due in part to the fact that expert instructors for training and educational programs tend to originate from developed countries and multinational corporations. Such a lack can also be attributed to the limited research devoted to the area. It is therefore no surprise that

108. *See* Keith E. Maskus, *Teaching the Economics of Intellectual Property Rights in the Global Economy*, *in* TEACHING OF INTELLECTUAL PROPERTY, *supra* note 11, at 166 ("Like anti-monopoly policies, technical product standards, and fiduciary requirements, IPR are business regulations that importantly affect competition, market structure, and other crucial processes."); *see also* GOLLIN, *supra* note 101, at 23 ("Accountants view intellectual property as a form of intangible asset. In addition to intellectual property, intangible assets include goodwill, and reflect the fact that the market value of a firm is usually much more than the value of the 'hard assets' such as cash, real estate, computer equipment, and so on."); Frederick M. Abbott, *The Cycle of Action and Reaction: Developments and Trends in Intellectual Property and Health*, *in* NEGOTIATING HEALTH, *supra* note 41, at 27, 36 ("A patent is essentially a financial instrument that entitles its bearer to achieve greater than competitive market rates of return on investment.").

109. *See* Yu, *supra* note 41, at 882 ("[M]arket aggregation of various less developed countries may be needed to generate enough purchasing power to make the development of an indigenous pharmaceutical industry attractive."); *see also* General Council, *Protocol Amending the TRIPS Agreement* art. 31*bis*(3), *in* General Council, *Amendment of the TRIPS Agreement*, WT/L/641 (Dec. 8, 2005) (allowing for the establishment of regional arrangements to "harness[] economies of scale for the purposes of enhancing purchasing power for, and facilitating the local production of, pharmaceutical products").

recommendation 26 "encourage[s] Member States, especially developed countries, to urge their research and scientific institutions to enhance cooperation and exchange with research and development institutions in developing countries, especially LDCs."[110]

Finally, as intellectual property rights continue to expand and diversify, it is important that the participants of training and educational programs better understand the different models that can be built upon existing rights. The more successfully local creators, inventors, and businesses use the intellectual property system to promote their interests, the more likely the system can be harnessed to promote the interests of developing countries. A greater stake in the system on the part of these countries would also generate benefits for developed countries and their supportive rights holders.[111]

D. HISTORICAL APPRECIATION

History is important, not only because it tells us what happened in the past, but also because it provides important lessons and directions for the future. As philosopher George Santayana wrote, "Those who cannot remember the past are condemned to repeat it."[112] Given the recurrence of intellectual property developments, including past efforts made by developing countries to recalibrate international intellectual property standards, it is particularly important for training and educational programs to help the participants understand

110. 45 Adopted Recommendations, *supra* note 2, recommendation 26.

111. As I noted earlier:

> A country's interest in setting new and higher international intellectual property enforcement norms depends largely on the overall structure of the global intellectual property system and the substantive benefits that country can derive from reforming the system. As less developed countries continue to push for greater protection of traditional knowledge and cultural expressions—and to some extent, geographical indications—they eventually will reach a point where the existing system will provide them with some attractive benefits. At that point, they may begin to value the effective enforcement of intellectual property rights as highly as their developed counterparts. After all, the successful protection of intellectual property rights depends on the existence of effective enforcement.

Yu, *supra* note 56, at 523–24; *see also* Peter K. Yu, *The Copyright Divide*, 25 CARDOZO L. REV. 331, 431–33 (2003) (suggesting the creation of stakeholders as a key area of remedial measures needed to address massive piracy and counterfeiting).

112. GOLLIN, *supra* note 101, at 26 (quoting GEORGE SANTAYANA, THE LIFE OF REASON: OR THE PHASES OF HUMAN PROGRESS 232 (1932)) (internal quotations omitted).

past developments.

In fact, the establishment of the WIPO Development Agenda has demonstrated how important the past has been. In the 1960s, for instance, countries already pushed for the establishment of a development agenda. This so-called "Old Development Agenda" eventually included the drafting of the Stockholm Protocol Regarding Developing Countries, the formation of WIPO as a U.N. specialized agency, the development of the draft International Code of Conduct on the Transfer of Technology under the auspices of UNCTAD, and negotiations concerning the revision of the Paris Convention.[113] There are also remarkable similarities between the "common heritage of humankind" concept advanced at that time and the commons concept widely used today in the free software, open source, free culture, and access to knowledge movements.[114]

While developing countries and their supporters have achieved only limited success in the Old Development Agenda, the existence of that Agenda has shown that the recent pro-development efforts are not entirely new. An important question for us therefore is: How different is the present Agenda from the old Agenda? After all, if the Agenda merely repeats its failed predecessor without making significant adjustments, how likely is it to succeed the second time?[115]

In addition to studying past efforts developing countries have made, training and educational programs can make use of case studies on how a select group of countries successfully caught up with their more developed counterparts in terms of both economic and technological developments. For example, the United States, Japan, South Korea, and Singapore have all been developing countries, yet they are highly economically developed and

113. *See* Yu, *supra* note 57, at 468–511 (discussing the developments surrounding what I have described as the "Old Development Agenda").

114. *See id.* at 541–42 (stating that the common heritage of humankind concept "has been used in the past few decades to push for the protection of cultural property, an equitable disposal of materials found in outer space, the joint ownership of seabed resources under the United Nations Convention on the Law of the Sea, the mutually beneficial exploration and development of Antarctica, and the conservation of plant genetic resources").

115. *See id.* at 543 ("If the [New Development Agenda] simply repeats its failed predecessor without making significant adjustments, this agenda is unlikely to succeed.").

technologically proficient today.[116] Following this trend, commentators have already begun studying the economic and technological transformation of the so-called BRICS countries (Brazil, Russia, India, China, and South Africa).[117]

In *Intellectual Property Rights, Development, and Catch-up: An International Comparative Study*, for example, Hiroyuki Odagiri, Akira Goto, Atsushi Sunami, and Richard Nelson provided an important collection of studies on the catch-up processes that developed, emerging, and large developing countries have experienced.[118] Training and educational programs that provide a deeper understanding of these case studies are likely to be useful for policymakers from developing countries. These case studies will also be useful to authors, inventors, and businesses, most of whom rely on intellectual property rights to become successful.

E. GLOBAL AWARENESS

Global perspectives are particularly important to policymakers and industry leaders from developing countries. Without a doubt, international politics plays a rather important role in determining how countries negotiate at the international level and what intellectual property standards countries ultimately adopt.[119] Indeed,

116. *See, e.g.*, Yu, *supra* note 81, at 528–43 (discussing how once-developing countries crossed over the intellectual property divide to become economically developed and technologically proficient).

117. *See* Jim O' Neill, Goldman Sachs, *Building Better Global Economic BRICs* (Goldman Sachs, Global Economics Paper No. 66, 2001), *available at* http://www.goldmansachs.com/our-thinking/topics/brics/brics-reports-pdfs/build-better-brics.pdf (introducing the concept of "BRICs"); Dominic Wilson & Roopa Purushothaman, Goldman Sachs, *Dreaming with BRICs: The Path to 2050* (Goldman Sachs, Global Economics Paper No. 99, 2003), *available at* http://www.goldmansachs.com/our-thinking/brics/brics-reports-pdfs/brics-dream.pdf (expanding on O'Neill's concept); JIM O'NEILL, THE GROWTH MAP: ECONOMIC OPPORTUNITY IN THE BRICS AND BEYOND 69–79 (2011) (providing more recent thoughts on the BRICs, which O'Neill now terms the "growth markets").

118. Odagiri et al., *supra* note 38.

119. For two recent collections of articles on the politics of intellectual property, see generally volume 3, issue 1 of *The WIPO Journal* and POLITICS OF INTELLECTUAL PROPERTY: CONTESTATION OVER THE OWNERSHIP, USE, AND CONTROL OF KNOWLEDGE AND INFORMATION (Sebastian Haunss & Kenneth C. Shadlen eds., 2009). For book-length studies in the area, see sources cited in Yu, *ACTA and Its Complex Politics*, *supra* note 14, at 2 n.7.

a growing number of intellectual property scholars have emphasized the importance of studying trade geography, international relations, and global politics.

With the rapidly changing geopolitics and the arrival of new and emerging players in the international intellectual property regime,[120] it is no longer sufficient to have the simplistic view that the international intellectual property debate reflects a North–South divide. Today, there are many important and intriguing developments among developed countries, between developed and large developing countries, and between developed and developing countries. While developed and large developing countries have stood side by side on certain issues, they are bitter opponents concerning others.[121]

At the global level, as opposed to the international level, there are also many interesting developments featuring non-state and sub-state actors.[122] The widely cited example of non-state arrangements concerns ICANN (Internet Corporation for Assigned Names and Numbers),[123] which is a private not-for-profit U.S. corporation in California that is charged with coordinating the Internet domain name system. Although ICANN is not a governmental agency, it has contractual obligations with the U.S. Department of Commerce.[124]

120. *See* Yu, *supra* note 57, at 546–54 (discussing the arrival of new players in the context of the WIPO Development Agenda).

121. *See* Yu, *ACTA and Its Complex Politics*, *supra* note 14, at 13 ("[T]he divide in the international intellectual property debate is not as simple as one between the North and the South. Indeed, it is increasingly common to find developed countries standing side by side with emerging or fast-growing developing countries.").

122. *See id.* at 15 (discussing the emergence of global politics in the context of the ACTA negotiations); Yu, *Access to Medicines*, *supra* note 94, at 375 ("Although the WTO and the international intellectual property regime remain heavily state-centered, the participation of non-state actors (such as multinational corporations and nongovernmental organizations) and sub-state agents has grown considerably.").

123. *See* Yu, *supra* note 76, at 427 ("[A] new form of non-national lawmaking has emerged with the creation of ICANN and the privatization of the domain name system.").

124. *See* Peter K. Yu, *The Origins of ccTLD Policymaking*, 12 CARDOZO J. INT'L & COMP. L. 387, 396–97 (2004). For excellent discussions of the U.S. government's efforts to privatize the DNS and the early development of ICANN, see generally MILTON L. MUELLER, RULING THE ROOT: INTERNET GOVERNANCE AND THE TAMING OF CYBERSPACE (2002); A. Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 DUKE L.J. 17 (2000).

There are also important developments concerning a wide variety of non-state actors. These players include multinational corporations, political activists, consumer advocates, civil liberties groups, academics, media, and individual citizens.[125] A better understanding of global developments therefore will provide not only a more complete picture of the ongoing development of the international intellectual property system, but also insights into where opportunities and challenges will lie for developing countries.

Inevitably, concerns will arise over whether a focus on geopolitical developments would politicize the materials for training and educational programs. However, it is fair to state that the omission of such an important set of issues will be a disservice to the participants of these programs. Indeed, given the contentious and polarized nature of the existing international intellectual property debate,[126] it is virtually impossible to ignore the complex political dynamics in the international intellectual property system. Moreover, as Jeremy de Beer and Chidi Oguamanam observed, "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."[127]

To avoid politicizing training and educational programs, it will be helpful to focus these programs on identifying the various positions the different players have taken and explaining their concerns and strategies. It will also be useful to document the state of play in the larger international intellectual property regime. Such documentation would provide the participants with important information about available opportunities in the international intellectual property arena as well as those potential allies that can help them achieve their development objectives.

By being balanced, transparent, and inclusive, the programs will better equip the participants with the needed information concerning the complex politics within the international intellectual property system while avoiding further polarizing the debate. Such

125. *See* Meléndez-Ortiz, *supra* note 10, at vii (noting "the emergence of a critical mass of well-informed stakeholders in developing countries—including decision-makers and negotiators as well as actors in the private sector and civil society").

126. *See* Yu, *supra* note 9, at 7–10 (discussing the increasingly polarized debate on intellectual property law and policy).

127. de Beer & Oguamanam, *supra* note 10, at 31.

transparency and inclusiveness are indeed strongly supported by the WIPO Development Agenda, which specifically mentions the need for openness and transparency.[128] Having balanced and transparent programs is also important because "even seemingly 'technical' training has embedded in it ideological views about the role of IP [intellectual property] in society."[129]

V. THE DELIVERY OF TRAINING AND EDUCATIONAL PROGRAMS

There are many ways to deliver training and educational programs. The organizers of these programs also have to consider many factors, ranging from target audience to delivery modes to evaluation methods.

Viewed collectively, intellectual property training and educational programs have a broad target audience. As the WIPO Academy noted on its website, "[i]ts programs cater to different target audiences—inventors and creators, business managers and IP professionals, policy makers and government officials of IP institutions, diplomats and representatives, students and teachers of intellectual property and the civil society."[130] WIPO is used as an example here, because many consider the organization "the most active and influential organization delivering IP training and education in developing countries."[131]

The WIPO Academy's approach is understandable. Today, intellectual property issues are no longer arcane and obscure; they

128. *See* 45 Adopted Recommendations, *supra* note 2, recommendation 1 (stating that "WIPO technical assistance shall be . . . transparent"), recommendation 42 (recommending WIPO to "enhance measures that ensure wide participation of civil society at large in WIPO activities in accordance with its criteria regarding NGO acceptance and accreditation, keeping the issue under review"), recommendation 43 (recommending WIPO to "consider how to improve WIPO's role in finding partners to fund and execute projects for intellectual property–related assistance in a transparent and member-driven process and without prejudice to ongoing WIPO activities").

129. de Beer & Oguamanam, *supra* note 10, at 9.

130. *WIPO Academy*, WIPO, http://www.wipo.int/academy/en/ (last visited Sept. 8, 2012).

131. de Beer & Oguamanam, *supra* note 10, at viii; *accord* Meléndez-Ortiz, *supra* note 10, at vi (describing WIPO as "the most important technical assistance provider at the multilateral level").

are not confined only to legal practitioners and a highly technical audience.[132] Instead, they have reached the consciousness of the public at large. From Mickey Mouse to Barbie® Dolls to software patents, intellectual property issues have become highly relevant to our everyday life. This is particularly true with the popularization of the Internet and the widespread adoption of the digital lifestyle.

Nevertheless, programs targeting authors and inventors are badly needed. These programs can also be quite different. Who teaches the training and educational programs is likely to greatly affect the outcome of these programs. Given the highly polarized nature of the intellectual property debate, the choice of instructors will also affect the perception of the programs as to whether they are impartial, beneficial, and constructive.

As to evaluation methods, there has been no consensus thus far on what methods would be considered appropriate. In fact, a standard set of methods for training and educational programs is unlikely to exist. Among the identified features of a good training program for intellectual property management are the following: relevance to practical issues, qualifications and experience of trainers, training topics and relevance, method of instruction, training environment, training schedule and session plans, training material, and post-training support.[133] While many of these elements have objective standards, it can be rather subjective to assess the relevance of training topics, especially in relation to development. There are also many additional fine-grained pedagogical issues, such as teaching philosophies, interests of the specific instructors, student–teacher roles, learning styles, and co-curricular support.[134]

Notwithstanding the challenges of evaluating training and educational programs, it is important to use the best efforts to assess whether these programs actually serve the goal of promoting

132. *See* SUSAN K. SELL, PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS 99 (2003) ("To a certain extent IP law is reminiscent of the Catholic Church when the Bible was in Latin. IP lawyers are privileged purveyors of expertise as was the Latin-trained clergy."); Yu, *supra* note 76, at 419 ("In the past, intellectual property issues were considered arcane, obscure, complex, and highly technical.").

133. *See* Sibongile Pefile & Anatole Krattiger, *Training Staff in IP Management*, *in* HANDBOOK OF BEST PRACTICES, *supra* note 44, at 601–03.

134. *See* de Beer & Oguamanam, *supra* note 10, at 29–30.

development. Recommendation 33 specially "request[s] WIPO to develop an effective yearly review and evaluation mechanism for the assessment of all its development-oriented activities, including those related to technical assistance, establishing for that purpose specific indicators and benchmarks, where appropriate."[135] Review and evaluation undeniably has been an important part of the WIPO Development Agenda.

The rest of this part focuses mainly on six different modes of delivering training and educational programs. It is important to keep in mind that each program has different strengths and weaknesses.[136] As a result, the target audience should vary not only in size but also in kind. For example, some modes will suit policymakers and practitioners better, while others are geared toward authors, inventors, business owners, and members of the public.

A. FACE-TO-FACE TEACHING

Face-to-face teaching—such as focused seminars, semester- or year-long courses, or certificate- or degree-granting programs—provide the most effective way to deliver intellectual property training and education. Face-to-face teaching can include different components. For example, degree-granting programs can include a classroom component, which includes not only lectures, but also writing projects that require in-depth analyses of specific issues.[137] The programs can also include a skills component, featuring negotiation sessions, drafting tutorials, simulation exercises, role-playing games, and field trips. In addition, the programs can include an experiential component, which will be discussed in more detail below.[138]

135. 45 Adopted Recommendations, *supra* note 2, recommendation 33.

136. *See* Pefile & Krattiger, *supra* note 133, at 605–06 (discussing the pros and cons of the different types of training programs for intellectual property management).

137. *See* Michael J. Madison, *Writing to Learn Law and Writing in Law: An Intellectual Property Illustration*, 52 ST. LOUIS L.J. 823 (2008) (discussing how students can learn intellectual property law by writing); *see also* WILLIAM ZINSSER, WRITING TO LEARN (1988) (discussing learning by writing).

138. *See* discussion *infra* Part V.D.

B. DISTANCE LEARNING

Compared with face-to-face teaching, distance learning is attractive in light of its ability to reach out to a large number of participants in different geographical regions at a relatively low cost and at different times.[139] The use of multimedia materials, hyperlinked sources, wikis, chat rooms, and audio- and videoconferencing tools can further enhance learning outcomes.[140]

Distance learning, however, does not provide the focused environment found in face-to-face teaching; interactions are different not only between instructors and participants but also among participants. The present state of technology remains ineffective to replicate the learning experience in a face-to-face environment, even though the interactions between instructors and participants have considerably improved, and participants now have greater capabilities to communicate with each other. It is also worth noting that distance learning does not suit all types of students—or, for that matter, all types of instructors.[141]

139. *See Distance Learning*, WIPO, http://www.wipo.int/academy/en/courses/distance_learning/index.html/ (last visited Sept. 8, 2012) ("The greatest advantage of distance learning as a study methodology is that its reach is not confined by such constraints as geographical location and time. Thus, any registered student, anywhere in the world, can benefit from the WIPO Academy's distance learning program at a time and place convenient to him/her.").

140. One example is the IP PANORAMA developed jointly by WIPO, the Korean Intellectual Property Office, and the Korean Invention Promotion. As WIPO's website described:

> IP PANORAMA™, an advanced e-learning tool on intellectual property . . . for business, is an interactive and user-friendly multimedia product which explains in layperson's terms the practical relevance and strategic uses of different aspects of the IP system for business and its potential role in enhancing competitiveness and boosting profits. The original product consisting of 10 modules which dealt with patents, trademarks, designs, copyright and related rights and trade secrets as well as patent information, licensing, e-commerce, international trade and IP audit was released in September 2007 and has been received with a great deal of interest and appreciation from a wide range of viewers, especially from SMEs, SMEs support institutions, and academia.

WIPO & KIPO Launch More "IP PANORAMA™" Accessible to the Public, WIPO, http://www.wipo.int/sme/en/multimedia/ip_panorama_new_modules.html (last visited Sept. 8, 2012).

141. *See* Philip Griffith, *Using the New Technologies in Teaching Intellectual Property (Distance Learning)*, *in* TEACHING OF INTELLECTUAL PROPERTY, *supra* note 11, at 268, 272.

To design distance-learning programs, it is important to keep in mind both the rapid proliferation of instruction technologies and the technological challenges confronting developing countries. Indeed, the problems concerning the global digital divide[142] are so acute that this divide has received explicit recognition in the WIPO Development Agenda. Recommendation 24 specifically "request[s] WIPO, within its mandate, to expand the scope of its activities aimed at bridging the digital divide."[143]

Although the Internet is usually considered the preferred medium of delivery, the organizers of training and educational programs should consider using mobile telephony, podcasts, or other forms of communications technologies to enhance the programs' accessibility and affordability. It is also important to keep in mind that the digital divide covers not only the gap in access to technology, but also the disparities in access to digital content and in the level of digital literacy.[144]

Finally, to take full advantage of the immense educational potential created by the Internet and new communications technologies, it is worth considering the use of open licenses and open-access formats to ensure that the materials from distance-learning programs are widely available among the public.[145] Such usage will further enable other instructors—from another developing country, perhaps—to reuse the materials for educational purposes.[146]

The availability of free discussion boards, digital repositories, and electronic journals could be beneficial not only to the participants of

142. *See generally* Peter K. Yu, *Bridging the Digital Divide: Equality in the Information Age*, 20 CARDOZO ARTS & ENT. L.J. 1 (2002) (providing an overview of the digital divide).

143. 45 Adopted Recommendations, *supra* note 2, recommendation 24.

144. *See* Yu, *supra* note 142, at 6–16 (defining the "digital divide" broadly to cover not only information and communications technologies but also digital content).

145. *See* de Beer & Oguamanam, *supra* note 10, at 36 ("All curricula and materials should, insofar as possible, be openly accessible online pursuant to fair and flexible licensing terms.").

146. *See* Andrew Rens, *Implementing WIPO's Development Agenda: Treaty Provisions on Minimum Exceptions and Limitations for Education*, *in* IMPLEMENTING WIPO'S DEVELOPMENT AGENDA, *supra* note 9, at 164–65 (discussing open educational resources and the Cape Town Open Education Declaration).

distance-learning programs, but also to those interested parties who have yet to be able to participate in those programs. It is also worth considering efforts to build "an accessible on-line inventory of scholarly literature and teaching materials on IP and development and support public access to new multidisciplinary research publications and curricular materials on these topics."[147]

C. TOWN HALL MEETINGS

Training through large town hall meetings can be useful if the goal is to raise awareness about intellectual property protection and the costs and benefits of such protection. Recommendation 3 emphasizes the need to promote a "development-oriented intellectual property culture" and to generate "greater public awareness on intellectual property."[148] While town hall meetings do not offer the tailored experience found in either face-to-face teaching or distance-learning programs, they provide a cost-effective means to build awareness among a large number and a highly diverse group of participants. They also provide an effective means of community engagement. Town hall meetings enable organizers to reach out to authors, inventors, and business owners who are seeking basic information about the protection and enforcement of intellectual property rights.

D. PROFESSIONAL DEVELOPMENT

There is no substitute to professional development opportunities, such as internships,[149] to provide on-the-job training. Such internships are particularly useful for practitioners who need to acquire specialized knowledge through learning by doing. By providing concrete experience and the opportunity to reflect on such experience, internships enable the participants to better understand the mechanics of and procedural requirements for protecting and

147. CAROLYN DEERE BIRKBECK & SANTIAGO ROCA, AN EXTERNAL REVIEW OF WIPO TECHNICAL ASSISTANCE IN THE AREA OF COOPERATION FOR DEVELOPMENT 130 (2010).

148. 45 Adopted Recommendations, *supra* note 2, recommendation 3.

149. *See* Barbara Kolsun, *Model Intellectual Property Internship Programs: Internship Programs Within the Scope of Employment Law*, *in* INTELLECTUAL PROPERTY OPERATIONS AND IMPLEMENTATION IN THE 21ST CENTURY CORPORATION 251 (Lanning G. Bryer et al. eds., 2011) (discussing intellectual property internship programs).

enforcing intellectual property rights. They also allow the participants to take advantage of any internal training opportunities available at the internship sites.

Indeed, teachers of clinical training have noticed their students learning the materials more deeply and more effectively when they are given responsibility for their work and when they engage in collaboration with coworkers.[150] Thus, it would be useful to develop internship programs that allow developing country participants to work in intellectual property offices in developed and large developing countries, regional and international institutions, multinational corporations, and technology transfer offices at universities and other research institutions. It will also be helpful to include in certificate- or degree-granting programs an internship component or an advanced practicum for hands-on training.

E. ACADEMIC EXCHANGE

Recommendation 26 recognizes the need "[t]o encourage Member States, especially developed countries, to urge their research and scientific institutions to enhance cooperation and exchange with research and development institutions in developing countries, especially LDCs."[151] In doing so, programs can be developed to train trainers from developing countries, thereby reducing the reliance of these countries on foreign trainers.

In the mid-2000s, WIPO established a new Global Network on Intellectual Property Academies.[152] With academies located in a wide variety of countries, the network has provided the needed institutional base to promote training and education in the intellectual property area. The training institutes and centers involved in the network provide a good starting point for exchanging information, sharing experiences and best practices, and promoting peer networking among academic instructors. The institutions can also serve as hubs for resource persons, clearinghouses for up-to-date

150. *See* Christine Haight Farley et al., *Clinical Legal Education and the Public Interest in Intellectual Property Law*, 52 ST. LOUIS U. L.J. 735, 740 (2008) ("[W]hen students have responsibility for their work and engage in their collaborations, they incorporate that learning deeply.").

151. 45 Adopted Recommendations, *supra* note 2, recommendation 26.

152. *See Global Network on Intellectual Property (IP) Academies,* WIPO, http://www.wipo.int/academy/en/ipacademies/ (last visited Sept. 8, 2012).

teaching, research and resource materials, and sponsors of new, cutting-edge research.[153]

Academic exchange programs can be established through academic conferences, international seminars, short-term academic visits, and in-residence programs. These arrangements can enable developed country experts to visit developing country institutions, or vice versa. There are advantages and disadvantages to programs set up in either direction. While the former may be more cost-effective, the latter may allow developing country participants to acquire a more complete experience, which may pay off in the long run. Thus, it is important for the organizers of academic exchange programs to think seriously about their individual needs and interests.

F. PUBLISHED INFORMATION

Publications are useful for delivering content to a large number of people, thereby providing an opportunity for mass self-learning. It enables the participants to learn the development of intellectual property law and policy from a place and at a time individually chosen by them. While the dissemination of information is not always considered part of training and educational programs, it is hard to ignore the important roles libraries have played in academic institutions. Many academic institutions have also funded university presses or publication programs to disseminate knowledge and information.

As far as published information goes, the type and content can vary significantly. The organizers of publication programs therefore have to think carefully about their target audience. For example, do the programs seek to provide assistance to those who need help with their legal problems or those who are in search of new business models? Do the programs aim to provide the analysis needed to illuminate difficult concepts or complex developments?

In addition, should the publication programs provide support for the collection of data and the development of indicators that researchers can use? The latter is important because it not only provides the knowledge and documented evidence, but also

153. *See* de Beer & Oguamanam, *supra* note 10, at 38 (noting the need for a clearinghouse for courses and related teaching materials).

facilitates the research that academic commentators undertake. Indeed, researchers have increasingly called for the establishment of clearinghouses for hard-to-find or costly-to-collect data needed for empirical research. Such a collection of data will be highly useful to researchers in both developed and developing countries.

VI. CONCLUSION

The adoption of the WIPO Development Agenda in October 2007 has necessitated the rethinking of intellectual property training and educational programs. As the participants of the International Roundtable on WIPO Development Agenda for Academics have explored: "How can we design and deliver intellectual property training and educational programs with an eye to ensuring they reflect the Development Agenda principles and the development goals?"[154] There is no single, definitive answer to this question. Nor is there an easy one. Different individuals and different countries will need different training and educational programs.

Taking seriously the forty-five recommendations of the Development Agenda, this article stays away from using the top-down approach to recommend some model training and educational programs. Instead, it outlines the different program options available to developing countries. It also discusses the many issues and challenges to which the organizers of these programs should pay attention. It is my hope that the discussion in this article will help developing countries design programs that are suitable to their specific needs, interests, conditions, and priorities.

154. Peter K. Yu, How Can We Design and Deliver Intellectual Property Training and Educational Programs with an Eye to Ensuring They Reflect the Development Agenda Principles and the Development Goals? (2012) (unpublished manuscript) (on file with author).