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Intellectual Property For Latin America: How Soon Will It Work?

*Robert M. Sherwood**

Throughout the world, in every country, there are highly intelligent individuals with the capacity to create valuable inventions. Whether this potential is encouraged or suppressed, and whether their country benefits as a result, is greatly influenced by the intellectual property system of the country.

This paper has a hero, perhaps a tragic hero. He is an inventor, and a citizen of a Latin American country. It could be any country. For convenience we will call him Herocio. He could, just as easily, be a she. In fact, there are many Herocios and Herocias.

Herocio's predicament is common to many in Latin America. He has an inventive mind, approaching world-class competence. His creativity has inspired him throughout his life. He keeps thinking of new ways to do things, improve things, and solve technical problems. He has tried on occasion to actualize his ideas, but has found little or no support for them. In fact, he has pretty much given up trying.

A talented engineer in Guayaquil owns a large company that makes industrial equipment. Every Herocio knows his story. Occasionally he makes improvements in his machines. The improvements are quickly copied by his competitors. During a visit, the author once asked him if he ever thought of getting a patent. No, he replied, because he believes they are worth very little. Suppose the system got better, so they became worth something. Would this change the way you do business? Oh, yes, he said. Then, he would devote his time and his company's resources to making improvements in his machines.

Two comparable engineers own companies in the industrial city of Cuenca. One makes textiles and the other ceramics. Both have made inventions, but the inventions resulted from accidents or because problems arose that had to be solved. Neither man devotes regular efforts to improving the products he makes. Both have said that if they believed that patents were useful, they would eagerly spend time trying to improve their products.

Herocio went to some of the usual financing sources to seek funds for the development of his inventions, but he was turned down because he didn't have enough assets for collateral. The government's agency for technology promotion also turned him down, saying his education was not good enough, and besides, his inventions were not in the fields of technology favored by the government's current industrial policy.

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For those who know Latin America, Herocio's story is not a surprise. It is distressingly familiar. At least three explanations for his distress are commonly offered by observers, each of them wrong.

The first explanation for Herocio's tragic fate is that Latin America's countries are poor and cannot, indeed, should not, be expected to provide financial support for inventors. The second explanation declares that everyone knows that valuable technology comes only from the developed countries. One should not expect the developing countries to produce valuable technology. This explanation assumes that good brains are distributed to only certain segments of the world's population. A third explanation asserts that intellectual property protection is a tool of neo-colonialism and should be resisted in order to free poor nations from dependency on the strong countries of the North. This view has been losing vitality, but lingers in many minds. It assumes that intellectual property protection cannot play a role in stimulating private activity in developing countries.

I. A Glance at History.

A brief glance at where intellectual property came from may help us reflect on the situation in Latin America. Fascinating literature is available.¹ In the Middle East in ancient times, communities valued water and the water pots made by skilled potters. It was the practice of the potters to trace an identifying mark in their works to distinguish them from the works of others. Those early communities decided to honor those marks so that people could rely on those marks when seeking pots of a particular quality and source. In Europe, from the Middle Ages through the Nineteenth Century, the craft guilds developed secret techniques for producing various goods. Through the apprenticeship system, they trained successive generations in those skills, maintaining what were highly valuable trade secrets. Often company owners did not know the secrets of the guild craftsmen.

New technology constantly spawns protection for its intellectual content. The rights of authors (copyright) developed in the wake of the invention of the printing press. The concept of the patent emerged haltingly in the early modern period from the heightened creativity of the northern Italian states as trade with the Orient flourished.

A thread runs through these historical developments. Communities have long realized that by offering special treatment for inventive people, more inventions were produced which benefited the community as a whole. Robert Solow and Edwin Mansfield have pioneered in identifying the considerable economic power derived from the introduction of new technology into the American economy early in this century. Solow's work showed that for the period 1909 to 1949, close to half of the U.S. economy's growth was attributable to what was initially termed a residual, a factor largely identified as the infusion of new technology into the life of the nation.² Mansfield has since suggested that to increase growth in social welfare, greater protection for intellectual property should be considered.³

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1. For example, as a point of entry, see Frank D. Prager, *A History of Intellectual Property from 1545 to 1787*, 26 J. PAT. [& Trademark] Off. Soc'y 711-60 (1944).
 2. See Robert Solow, *Technical Change and Aggregate Production Function*, 39 REV. ECON. & STAT. 312, 314 (1957).
 3. Edwin Mansfield et al. *Social and Private Rates of Return from Industrial Innovations*, 91 Q. J. ECON. 221 (May 1977).
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At a theoretical level, it is quite inviting to posit that the introduction of new technology into most of the countries of Latin America would have a comparable, and perhaps even greater, effect on their economic growth. However, we have yet to witness such an infusion of technology derived from national sources of inventiveness, and the introduction of many kinds of technology from abroad has been restrained.

In short, a glance at history suggests that communities and countries that have seen the value of encouraging local people to create and invent have provided the means to encourage and support their activities through some kind of protection for the results of their intellectual efforts. Today, we know this as intellectual property.

II. Stimulating Intellectual Effort.

One obvious difference between the developed countries of the Northern and the Latin American countries in this century has been the quality of protection for intellectual property. Most Latin American countries have intellectual property systems imported from Europe during the second half of the 19th century. A fairly high regard for literary pursuits has typically offered protection for the rights of authors (copyright), at least in concept, if not always in practice. In general, however, that European inheritance suffered neglect. Since the Second World War, many of these systems have been subjected to deliberate weakening.

In the last decade, several factors have combined to produce a flurry of reforms throughout Latin America and in many other countries. Beginning in late 1984, the United States began to pressure countries, using the threat of trade retaliation under Section 301 of the Trade Act of that year. By this means, the U.S. Trade Representative demanded adequate and effective protection for intellectual property. The results have been mixed but did prompt changes in a few countries and focussed minds in others.

The growing desire for enhanced trade has been expressed in both global and regional agreements concluded since 1990, many of which contain intellectual property arrangements. The TRIPS Agreement, discussed below, is paramount among them, but the NAFTA accord involving Canada, Mexico, and the United States, the decisions of the Andean countries under ANCOM, and the provisions of the Group of Three each contain explicit intellectual property arrangements.⁴ In negotiating bilateral trade agreements in recent years, Mexico has insisted that intellectual property provisions be included.

Beyond these trade-centered factors, awareness of intellectual property has been growing in many countries. The high velocity of scientific advances, the globalization of television news, and the expanding use of the Internet, among other things, are heightening this awareness.

Notwithstanding the influence of these factors, considerable suspicion of intellectual property pervades most of Latin America today. Latin Americans were taught by Raul Prebisch and those of his school that intellectual property is a tool by which the countries of the center dominate the countries of the periphery. Many have found the poetry of the Prebisch analysis compelling. Moreover, because the United States demands strong protec-

4. Curiously, the MERCOSUR trade accord did not attempt to deal with intellectual property protection and subsequent efforts to build a common regime for trademarks alone have encountered difficulties.

tion for intellectual property, it is suspect. Beyond this, in recent generations, strong and effective protection has not been available in Latin American countries so it has not been tried. That is to say, inventors have not known the encouragement of such protection, nor have private investors known its stimulating effect.

Against this background, it may be timely to ask what level of intellectual property protection will be sufficient to fully stimulate intellectual efforts and when will that level be available in Latin America. This paper's intention is to answer those questions.

III. Stimulating the Local Inventor.

The TRIPS Agreement is now regarded as the benchmark for intellectual property protection. Because it is embodied in a widely-accepted international agreement, there is a tendency to uncritically assume its level of protection is adequate for all purposes.

The TRIPS Agreement emerged from the Uruguay Round of GATT multinational trade negotiations. The agreement, formally titled the Agreement on Trade-Related Aspects of Intellectual Property Rights, is part of the package of agreements associated with the formation of the World Trade Organization, now the world's regime for trade facilitation.

The inclusion of intellectual property in the Uruguay Round agenda was hotly contested. Although limited discussion of counterfeiting had begun during the previous Tokyo Round of GATT negotiations, the topic was cast aside at the end of that round without reaching any decisions. At the 1986 inaugural sessions of the Uruguay Round, the United States strenuously urged inclusion of intellectual property. India, Brazil, and a dozen other developing countries strenuously urged exclusion. The topic was admitted, but as an appendage. As the round began, this agenda item was restricted to those aspects of intellectual property that relate to trade. A furious debate ensued over what might constitute trade-related intellectual property.

As the negotiations progressed, this debate subsided but remained a defining background influence. The negotiators struggled for over six years to forge a text. India and Brazil opposed many of the U.S. demands. The European countries weighed in on both sides of many issues. In the end, the TRIPS text was not forged by the negotiators but was offered to them by the staff of the GATT secretariat hours before the December 1991 deadline for completing the Round. It was characterized by some as a balanced text because it presented an amalgamation of the two main competing texts as the deadline neared.

The historic role of intellectual property protection has been to stimulate creativity and invention, not to facilitate trade. From the nature of its origins, the TRIPS Agreement aspired only to the latter. As a compromise between countries that favored and opposed strong protection, it cannot be held up as a model for the stimulation of creativity and invention. The negotiators were given a mandate to reduce trade friction and encourage trade flows, and they responded to that mandate. They gave little, if any, consideration to the historic role of intellectual property, which is essentially to encourage investment in high levels of technology.

This observation does not answer the question of what higher level of protection is sufficient to stimulate private investment in support of technology development. The United States, Japan, most of the European countries, and a few others have attained such a level without having identical intellectual property systems. Yet, their systems are complex and perhaps too unwieldy for most developing countries.

A search for this sufficient level of protection has proceeded along the following lines. Starting in 1992, the InterAmerican Development Bank, in furthering its Investment Sector Program, a program designed to foster a policy environment conducive to private investment, began to evaluate the intellectual property systems in selected countries.⁵ This work proceeded quietly and without reference to the negotiations that lead in late 1993 to the TRIPS Agreement.

Analyses of the intellectual property systems of a dozen countries were prepared over the next four years. Because uniformity in conducting these analyses was an implicit value, a numerical template was created for assessing and comparing national systems. The numerical ratings derived from this system proved useful in responding to the inevitable questions about which country had the best system. Subsequent work in other countries for the World Bank and others has permitted assessments of eighteen developing countries which have been included in the numerical rating system.⁶

The numerical rating system adopted a base scale of 100 points. Eight components of an intellectual property system were evaluated. Within each component, standard questions were asked of those in each country who were in the best position to answer them. This involved extensive interviews with local intellectual property lawyers, business people, and relevant government officials. The eight components and the points assigned to each are the following:

Enforcement	25
Public administration	10
Copyright law	12
Patent law	17
Trademark law	9
Trade Secret protection	15
Higher Life Forms	6
Treaties	6
Total	100

The news in this template may be the large number of points assigned to trade secret protection, nearly as many as for patent protection. The Higher Life Forms category was created to highlight the importance of intellectual property protection for the agriculture sector. It includes both the UPOV-style of protection for new plant varieties and the patentability of transgenic plants and animals above the level of the microorganism.

The application of the numerical template is meant to reveal those gaps and deficiencies in national intellectual property systems which will tend to discourage private investors. The template reflects the perspective of the average investor, and, in particular, the average local investor. Therefore, the template may under- or over-represent the views of any specific industry or even a specific company. Nonetheless, the numerical rating system has been offered to assist in analyzing the role of intellectual property in economic development.

5. The author was active in this program as a consultant.

6. For a full description of the methodology and application of this numerical rating system, see Robert M. Sherwood, *Intellectual Property Systems and Investment Stimulation: The Rating of Systems in Eighteen Developing Countries*, 37 IDEA 2, 261-370 (1997). A Spanish translation has been published by Editora Heliasta in Buenos Aires.

The findings obtained from the application of the numerical system to date are derived from Sherwood 1997 and presented in Tables 1 and 2 at the end of this paper. Table 1 shows the results of the application of the template to each of the eighteen countries. The numbers shown indicate the points subtracted under each of the eight components. The subtracted points reflect conditions which discourage private investors. A high score means a negative assessment.

The total of these negative points for each country is then subtracted from the base of 100. One to three bonus points can then be added to reflect general public commitment to intellectual property protection. The resulting scores are then shown in Table 2, which indicates the position of each of the eighteen countries relative to the others. The United States, Japan, and the leading European countries are shown in their probable relative position in Table 2, but the numerical template has not been applied to their intellectual property systems. No country attains or even approaches the theoretically perfect score of 100 because technology is always moving ahead of the law and because no institution or system is perfect.

Table 1

NEGATIVE POINTS SUBTRACTED
Overview Matrix
(in alphabetical order)

of possible	Enfcmt (25)	Admin (10)	Copyrt (12)	Patent (17)	Tdmark (9)	Td Scts (15)	Liffms (6)	Trties (6)	=100
ARGENTINA	21	3	4	13	0	13	4	3	=61
BAHAMAS	0	1	4	3	3	0	5	4	=20
BARBADOS	0	9	7	10	1	0	6	0	=33
BRAZIL	13	8	4	10	1	11	5	0	=52
CHILE	9	5	2	5	1	10	5	2	=39
COSTA RICA	9	0	0	16	3	12	4	2	=46
ECUADOR	20	7	5	9	3	7	3	4	=58
EL SALVADOR	21	8	5	1	7	10	3	2	=57
GUATEMALA	25	8	10	14	7	12	6	5	=87
INDIA	12	3	5	11	4	8	6	5	=54
MEXICO	19	2	7	1	0	3	1	0	=33
NICARAGUA	19	5	10	13	7	13	6	4	=77
PAKISTAN	9	6	8	14	5	1	2	6	=51
PANAMA	17	5	3	7	8	12	6	6	=64
PARAGUAY	21	5	10	15	7	12	6	2	=78
PERU	14	1	3*	9*	1*	7	3*	2	=40
SOUTH KOREA	7	2*	3	6*	1	5*	2	2	=28
URUGUAY	7	2	8	14	5	10	4	2	=52
TRIPS	18	3	4	10	0	3	4	4	=46
NAFTA	12	5	2	5	0	5	3	1	=33

* = tentative

Table 2

TENTATIVE CORRELATION
of RATING SYSTEM with MANSFIELD 1994/95

RATING SYSTEM	MANSFIELD FINDINGS
100	
(75-90+ = US, EU, Japan)	
83 Bahamas	
74 South Korea	
	?<-- research and development
69 Barbados	
69 Mexico	
68 ^^NAFTA^^	
62 Chile	
61 Peru	
	?<-- complete manufacture
55 ^^TRIPS^^	
54 Costa Rica	
49 Brazil	
49 Pakistan	
	?<-- components manufacture
48 Uruguay	
46 India	
43 El Salvador	
42 Ecuador	
	?<-- assembly
39 Argentina	
36 Panama	
	?<-- sales and distribution
23 Nicaragua	
22 Paraguay	
13 Guatemala	

Caution: the scale increments are not evenly distributed and the position of the Mansfield categories relative to the scale calibration is done by inference and is approximate.

While it may be interesting to note the relative positions of the eighteen rated countries, it is important to press further to ascertain the meaning of those positions. Again, the question asks for indications of the level of protection at which investment stimulus is achieved.

Two empirical guides point to an answer. The first is derived from the author's observations made during the many weeks spent in the various countries reported in the numerical rating system study. The second guide is a correlation of those observations with the findings of a study conducted by Edwin Mansfield for the International Finance Corporation of the World Bank Group.⁷ This correlation is presented in Table 2.

The Mansfield studies reflect the views of large American, German, and Japanese firms selected from six industries relative to the intellectual property systems in fourteen developing countries. The firms were asked about their willingness to invest in, joint venture, and license their best and latest technology in those countries. The questions went further to examine the firms' willingness in relation to sales and distribution, assembly, component manufacture, complete manufacturing, and research and development.

By comparing the results of the numerical rating system with the Mansfield findings, it is possible to suggest that the industrial base of countries with scores below 50 will tend to be characterized by sales and distribution, assembly and component manufacture. Countries at the middle of the scale, where the TRIPS Agreement was placed, will tend to experience greater trade flows and investment which supports trade-related activities. Only those countries which appear further up on the scale are likely to experience complete manufacture of more sophisticated products and research and development. The threshold for the top level is not clearly defined but probably somewhere in the vicinity of a seventy.

Several observations emerge from this correlation. The type of investment attracted to the three lowest levels of industrial activity – sales, components, and assembly – is capable of arriving and withdrawing rather quickly. It is often a type of inventory financing. At the higher activity levels of full manufacturing and R&D, investments tend to be more durable since the facilities have a low salvage value. At the three lower activity levels, employee training is minimal. At the higher levels, human resource development is not only possible, but it becomes imperative.

In a study commissioned by the World Intellectual Property Organization, nine activities commonly influenced by intellectual property protection were analyzed in relation to the requirements of the TRIPS Agreement: innovation, price levels, technology acquisition, human skills development, private investment in technology, science for agriculture, private risk capital, and university technology transfer.⁸ This analysis posited three levels of intellectual property protection: non-robust, trade-facilitating, and robust or investment-stimulating. In thinking through the ramifications of these three levels for the nine activity areas, it became clearer that the TRIPS level of protection does not attain a level that would most fully benefit developing countries.

7. See Edwin Mansfield, *Intellectual Property Protection, Foreign Direct Investment, and Technology Transfer, and Intellectual Property Protection, Direct Investment, and Technology Transfer: Germany, Japan and the United States*, International Finance Corporation, Discussion Paper No 19, 1994, and Discussion Paper No 27, 1995, respectively.

8. Robert M. Sherwood, *The TRIPS Agreement: Implications for Developing Countries*, 37 IDEA 3, 491-544 (1997).

Reverting to Herocio, the hero of this paper, we want to ask for his views about the level of protection needed to encourage his inventiveness. He probably doesn't know much about intellectual property, but let us suppose that his older brother studied biotechnology for two years at an advanced degree level in England and then returned home. He told Herocio about the close working relationship he found there between local companies in his field and his professors. By osmosis, his brother gained the impression that somehow the British intellectual property system gives private companies an incentive to follow what is going on in particular fields at the British universities, to offer grants and fellowships, to hire the recent graduates for serious internal research programs, and to license university inventions from time to time. The brothers find nothing comparable in their country.

Herocio and his brother have noticed that companies that operate in many countries have options for conducting research. For example, they read that during a period when biotechnology research results were not well protected in Europe, many European companies established laboratories in the United States. They know from their own experience, either in seeking jobs doing serious research in local companies (there are almost none) or in attempting to launch micro-companies based on new technology (for which private risk capital is unavailable), that local inventors and local companies have only one option when attempting to create or advance some new technology. They must do it locally since they do not have the means to set up research facilities elsewhere.

The experience of the industrialists in Ecuador is very telling, and they are not unique to Latin America or to many developing countries. They say they would be willing to invest time and resources to improve their products if they felt that the means to protect their inventions were available. Herocio's life would be different too. He would know that if he came up with better technology, he would have a chance to attract private risk capital to support his work. He would feel more confident in building small teams of scientists to help him develop his inventions, rather than try to do it all himself to avoid loss of his secrets.

In short, the ability of developing countries to greatly enhance their own industrial and agricultural sectors will depend to an important degree on the ability of the intellectual property system to encourage research and development by local inventors. From a slightly different perspective, one of any developing country's most valuable resources is its creative and inventive people. They are a seriously underutilized resource until the intellectual property system attains a level of stimulation that appears to be somewhat above the protective level that the TRIPS Agreement stipulates.

There are at least three tests by which to judge whether a nation's intellectual property system has attained that level. One is to consider whether tiny companies that have intangible technology as their only asset are able to attract private risk capital. Another is to observe whether the results of university research are sought by local companies, thereby finding useful application within the national economy. A third test is to note whether large and mid-sized local companies devote time and resources to a sustained program of research designed to improve products, quality, and process technology. The willingness of companies to transfer technology to third parties might provide another test.

One night, Herocio and his brother were reflecting on the losses sustained by their country because of the lack of an adequate intellectual property system. Together, they knew of several dozen inventions, which they and colleagues and friends of theirs had made, which never attracted financial support and which never achieved commercial application. They speculated that within the local companies and universities many technical improvements had probably been made which no one ever thought of as patentable inventions. They were

clear that not all inventions deserve backing and that the failure rate for new technology is high. Still, they concluded that their country has probably suffered a considerable loss and late that night they pondered how that loss might be measured. They concluded that counting things that do not happen is either very easy or very hard. They agreed that they should ask some economists about this.

They have since often thought of themselves as potential national heroes, like Alexander Graham Bell or Thomas Edison in the United States and Canada. For now, they decided they can only be tragic heroes.

IV. A Touch of Political Economy.

Table 2 provides a slender springboard for a brief consideration of the political economy of intellectual property enhancement in developing countries. It is common in developing countries for those commercial interests that benefit from non-robust levels of intellectual property protection to be well-organized, articulate, and sometimes aggressive in opposition to higher levels of protection. One of the classic examples of this is the national pharmaceutical industry association in Argentina. On the other hand, since robust protection is not available, no local interests that would benefit from such protection have sprung up to espouse those levels. Thus, few voices speak out in support of higher levels of protection. Those who have traveled, studied, or worked abroad will sometimes have an appreciation of the potential benefits of enhanced protection for their country. Herocio, his brother, and a few of their friends are aware of the difficulties caused by the lack of such protection, but they are neither organized nor articulate. They represent a kind of latent demand for better protection, but these individuals perceive themselves as solitary or isolated individuals with no ability to move the national consensus. In fact, their stories are often quite moving.

V. How Soon?

Upon examining the numerical rating template as applied to her country, a senior official asked how long it would take to attain the level at which investment stimulation was likely to occur. She considered the point score under each of the eight categories and realized that most of the gaps and deficiencies could be rectified fairly quickly through legislative enactment or administrative reforms.

Fortunately, in her case, the judicial system functions fairly effectively so that the only improvements needed were largely a matter of refinements in the civil and criminal procedure codes. Unfortunately, strong negative public sentiments regarding certain aspects of intellectual property were widespread in the national mindset. We speculated about how long it would take to reverse those sentiments.

The recent experience of Mexico is instructive and could be studied further. In 1987, the government passed legislation which, although not a great advance, moved in the direction of more effective protection. Curiously, one of the major government research laboratories soon reported a positive impact on its activities as a result. The laboratory managers informed the SECOFI ministry officials responsible for intellectual property of that impact. Then, in 1991, another statutory reform moved the system further up the rating scale. Again, certain Mexican individuals and companies reported benefits that accrued to them as a result. A

broader public consensus in favor of strong protection began to grow. In 1994, fine-tuning of the intellectual property system was accomplished as still more Mexicans learned of the benefits for their interests. Today, as noted above, Mexico demands stronger protection for intellectual property from its trading partners when negotiating bilateral accords.

It is reported that, among other indications of improved protection, the Federal prosecutor's office in Mexico has begun to vigorously pursue trade secret violations. This is important since there is virtually no basis for private civil actions against the loss of trade secrets in Mexico.

Notwithstanding this growing awareness of benefits, the number of patent applications filed by Mexican residents in recent years has not increased, although applications from foreigners have been rising substantially. This is somewhat difficult to understand except from an appreciation for the weakness of the Mexican judicial system. Since residents are closest to the situation, they may be particularly aware of this weakness.

Thus, two main issues become the focus of this brief consideration of how long it will be before intellectual property protection begins to play a significant role in the production of new technology and creative expression in the countries of Latin America. The first concerns public sentiment. The other must examine the ability of judicial systems to sustain intellectual property rights.

A. PUBLIC SENTIMENT.

Countless laws have been passed throughout Latin America, which have never taken root in public administration, judicial action, or public awareness. Given the history of negative public sentiment regarding intellectual property, it is not an overstatement to suggest that only as public demand for robust intellectual property protection is expressed will intellectual property systems work in Latin America. Intellectual property systems involve large doses of administrative discretion and judicial discernment. If public administrators who operate the patent and trademark registries are unconvinced and if judges are ill-informed or antagonistic, the system will not work well.

In the nature of the situation, we can anticipate that public sentiment will eventually swing to a more positive appreciation of intellectual property. The negative views of intellectual property, which flourished in many countries from about 1950 to nearly 1990, were asserted by people who have now fallen into discredit for various reasons or have died. During that period, their voices filled the region's vacuum of public ignorance about intellectual property.

The major portions of the TRIPS Agreement's requirements are scheduled to take effect in developing countries at the turn of the century. While its provisions tend to facilitate trade rather than encourage investment in research, many people will feel the impact and shift to a more favorable attitude. We can predict that by about 2005, public sentiment will be appreciably altered.

Of course, this shift can be accelerated by increased education. Unfortunately, most educational efforts thus far have simply described intellectual property without going further to explain its benefits for economic growth and development. Case studies of the experience of inventive local people who have been frustrated by a lack of adequate protection could deepen the public's understanding. Economic analysis of the nation's losses sustained by reason of inadequate protection would help to further educate the policy community.

Articulate Latin Americans can also assist in shifting public sentiment. Many useful things can be said. A few such individuals have already begun to speak. More will no doubt emerge in the next few years. Some politicians, prominent among them the current president of Brazil, have spoken clearly about the desirability of robust protection for national benefit.

B. JUDICIAL SUPPORT.

Invariably, one of the weakest components in the intellectual property regimes of Latin America is the judicial system. Of the thirteen Latin American countries assessed in the numerical rating system, judicial enforcement for ten of them was rated at negative thirteen or worse. Many of the other developing countries that have not yet been assessed under the numerical rating system will be found in a comparable condition.

The numerical rating system inquired about judicial independence, patterns of corruption, the competence and formation of judges, judicial knowledge of intellectual property concepts, and judicial authority to apply immediate precautionary measures. When a judicial system is found wanting in regard to any of these categories, it is probably safe to assume that corrections will not be swiftly available.

Some observers will perhaps note that the TRIPS Agreement contains provisions that describe extensive requirements for the enforcement of intellectual property rights. Since these provisions come into force for developing countries as of January 1, 2000, might we not expect an acceleration of judicial system corrections where they are called for by the TRIPS Agreement?

While there will surely be some effect, Article 41(5) of the TRIPS Agreement makes explicit that countries need not apply extra resources to intellectual property enforcement and need not create special enforcement arrangements for intellectual property. In other words, the condition of a judicial system as of January 1, 2000, will define the country's obligations in this regard under the TRIPS Agreement. Unfortunately, as noted, many developing countries have judicial systems that are for the most part unable to provide effective support for intellectual property rights and many other rights for that matter.

Viewed from this perspective, Article 41(5) is not an escape clause. It simply recognizes the actual situation that exists in many countries. So, once again we must address the question of how long it will be before intellectual property will work for Latin American countries. To paraphrase a saying, a right without a remedy is but an expensive illusion. The expense of obtaining a patent or a trademark when effective enforcement will be unavailable is surely a waste of resources. Two different paths can be followed in answering this question. One path examines for a complete cure; the other looks at partial remedies.⁹

Rather than urge judicial system reform for the sake of intellectual property rights, or indeed for the sake of moral or ethical concepts, it may be more promising to urge judicial reform on the grounds that in an open economy, the lack of a well-functioning judicial system costs the national economy dearly. This pocketbook approach argues that every pocket will benefit from judicial reform. Conversely, every pocketbook will suffer without it. The

9. Alternative dispute resolution using conciliation or arbitration is not among the cures or remedies. While probably useful for other types of disputes, an infringer is not likely to be willing to submit to ADR techniques, if indeed he can be located after the infringement.

extent of the suffering remains largely unquantified, but it could be substantial.¹⁰ This approach could provide an accelerated path to comprehensive judicial reform. Even if accelerated, the needed corrections will not come quickly. Perhaps the swiftest teacher will be the experience of countries with judicial systems that function relatively well with respect to intellectual property, such as that of Chile.

The path of partial remedies can be pursued more quickly than the option of the complete cure. The final result, however, will be less satisfactory.

The path of partial remedies contains three components: training for judges, specialized courts, and sharpened tools for enforcement. Training for judges is an art form that is largely undeveloped in most of Latin America. Training is offered and the offers are sometimes accepted, but the approach is usually unimaginative. Lecturers tend to read new statutes to judges who are fully capable of reading the statutes themselves. Some exposure to the events of the real world, which a new statute is intended to address, would be more fruitful. Training for judges in Brazil has recently demonstrated the value of exposure to economic concepts. This is helping to make explicit the intuitions on which judges rely as they make their decisions.

Specialized intellectual property courts, if well designed and constituted, could help to significantly upgrade intellectual property systems in Latin America. Peru, Chile, and Panama have these courts already and Mexico has them under informal consideration. Brazil's new patent law speaks of their creation, although under the 1988 constitution, the decision rests with the judicial power. Germany, England, the Dutch, and the United States have specialized courts of various kinds that deserve careful evaluation by developing countries.

Sharper tools for enforcement would include such things as a range of precautionary measures by which violations of intellectual property rights could be promptly halted. Some countries have procedural codes that authorize such measures, yet judges in some of these countries are commonly reluctant to apply these tools.

More could be said about each of these partial remedies. The most important thing to note, however, is that each is partial. Even taken together, they remain partial. In other words, if the judicial system in general suffers from severe problems, these partial remedies will ultimately be vulnerable to failure.

10. See Robert Sherwood et al., *Judicial Systems and Economic Performance*, 34 Q. REV. ECON. & FIN., Summer 1994, at 101.

VI. Conclusion.

How soon? How long before intellectual property works for Latin America? It will probably happen faster than many expect. Already, those who visit Latin America frequently can feel the change in public sentiment. In Brazil, for example, the new patent law took effect in May, 1997, and within a few months the fire went out of public debate on the issue. There is an unspoken acceptance of the change and a willingness to see what will happen.

Latin Americans are intelligent and quick to learn what is happening in other parts of the world. Many younger people in particular are in touch with trends outside their country. Intellectual property is something being discussed by serious young people in many countries today.

Judicial system reform will be a much longer process. Progress in this regard is vital, not only for intellectual property to flourish but to encourage and sustain many other elements of economic development. A judicial system that functions well is a necessary foundation for all the institutions that matter. As this is more widely recognized, particularly among judges themselves, perhaps judicial reform will accelerate and flourish. Beyond this, installation of the three mentioned partial remedies will help to build an appetite for even stronger enforcement and accelerate its arrival.