

On the status of intellectual property teaching in Colombia

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I. What for, why, and how to teach IP in a middle income country?

Presentation

There are three relevant questions that must be answered to determine the situation of intellectual property teaching in Colombia: “what for”, “why”, and “how” to teach intellectual property in a middle income country.¹

The answer to the question of what for, has to do with the practicality of IP teaching in Colombia today. It also includes the analysis of the consistency and interdependencies between local and international public policies on IP, as well as what has been and is being taught in the country on it.

The answer to the question of why, requires an approximation to the origins: to those first moments in which Colombian academia became concerned about immateriality. It also involves exploring the context in which those desires were born and achieved, including the reasons and motives that inspired and have maintained them current.

Finally, the answer to the question of how, examines the structure of the current comprehensive IP curricula developed in the country, its academic emphasis and its achievements. It also requires to consider success factors, lessons learned, adjustments made and challenges to sustain its continuity.

II. What for?

Present Context

In 2010 Newsweek magazine reported: *“Stable, booming, and democratic, Colombia has increasingly become ‘a bright star in the Latin American constellation’, as emerging-market analyst Walter Molano of BCP Securities calls it.”*

¹ See International Indicators on Human Development PNUD. Gross National Income per capita. HDRO calculations based on data from World Bank (2012), IMF (2012) and UNSD (2012).
[URL:<http://hdrstats.undp.org/es/indicadores/100106.html>]

² Colombia: Balance 2012 and Perspectives 2013. ANDI Report, December 2012.p.2

Statements of this nature result suggestive when train to determine and characterize under which context the intellectual property teaching is developing in Colombia. To grasp the scope of the subject under study it is necessary to examine the economic and educational models of the country, and also its situation indicators such as the growth of the Gross Domestic Product (GDP), the investment of capital, the distribution of public spending, the income per capita, the unemployment rates, the rates of income distribution, the illiteracy and poverty indices, and those of coverage and access to education.

Colombia is located in the northern extreme of South America and in the territorial and commercial neighborhood of Venezuela, Ecuador, Peru, and Brazil, among other nations. Its main commercial partner in the Americas is the United States, with whom it has subscribed a Free Trade Agreement (FTA), and it also has commercial agreements in force with Canada, Mexico, MERCOSUR, CAN, Chile, the Northern Triangle, CARICOM, EFTA, South Korea and Venezuela (partial agreement), and a Free Trade Agreement with the European Union². Its economy corresponds to what economic analysts call "emerging economies"³, and some like *Michael Geoghegan*⁴, "CIVET economies" (Colombia, Indonesia, Vietnam, Egypt, Turkey, and South Africa), described by the Intelligence Unit of *The Economist*⁵ as those that looked promising for investors in 2010 and whose GDP growth would reach 4,5% per year in the following 20 years, above the forecasts for the G7 countries, that would grow 1,8% in average. According to these observations, these countries were identified by their young and prolific populations, with sizes that went from 240 million in Indonesia to 46,9 million in Colombia.⁶

In the framework of this type of economy, intellectual property has played an important role as a factor of juridical security and as creator of economic investment opportunities in the chains of production, marketing, and distribution of protected intangible goods. Presently in Colombia the

² Colombia: Balance 2012 and Perspectives 2013. ANDI Report, December 2012.p.2

³ [URL:<http://www.semana.com/economia/articulo/que-civets/120194-3>]

⁴ "An executive Director since 2004. Joined HSBC in 1973. Chairman of the Group Management Board. Chairman of HSBC Bank USA, N.A., HSBC Bank Canada, HSBC Latin America Holdings (UK) Limited and HSBC USA Inc. Deputy Chairman of HSBC Bank plc. A Director of The Hong Kong and Shanghai Banking Corporation Limited, and HSBC North America Holdings Inc. Chief Executive of HSBC Bank plc from 2004 to 2006. Responsible for all of HSBC's business throughout South America from 2000 to 2003. President of HSBC Bank Basil S.A. - Banco Múltiplo from 1997 to 2003". [URL:<http://topics.wsj.com/person/G/michael-f-geoghegan/426>]

⁵ "A colleague at the Economist Intelligence Unit has suggested more attention be paid in 2010 to the CIVETS: a second tier of big emerging markets consisting of Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa. Civets, in case you've forgotten, are small, catlike mammals found in Asia and Africa. Another acronym is also doing the rounds: VUCA, meaning that the economy will be characterised by volatility, uncertainty, complexity and ambiguity. If so, a good business strategy for 2010 would seem to be to minimise VUCA by diversifying into BRICS and CIVETS".

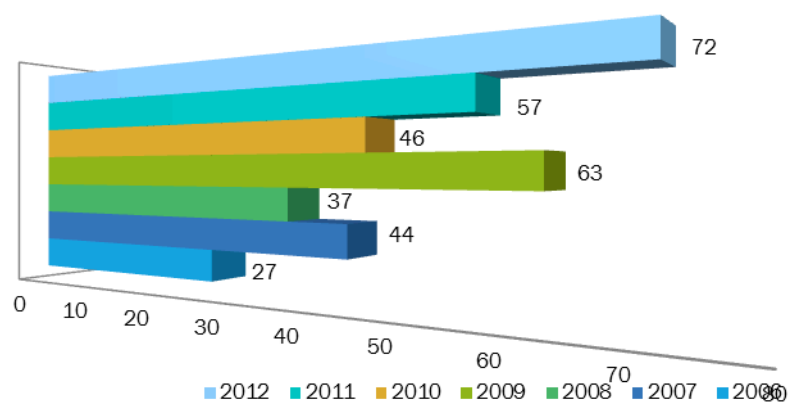
[URL:http://www.economist.com/blogs/theworldin2010/2009/11/acronyms_4]

⁶ *Ibid.*

industries protected by copyright contribute 3,3% of the GDP, following the terms of the Ibero-American Observatory of Copyright (ODAI).⁷

On its part, the industrial property has shown a relative growth in recent years regarding the patent applications PCT, as illustrated in the following graph.

GRAPH No. 1
Number of applications PCT per year (OMPI)
Colombia

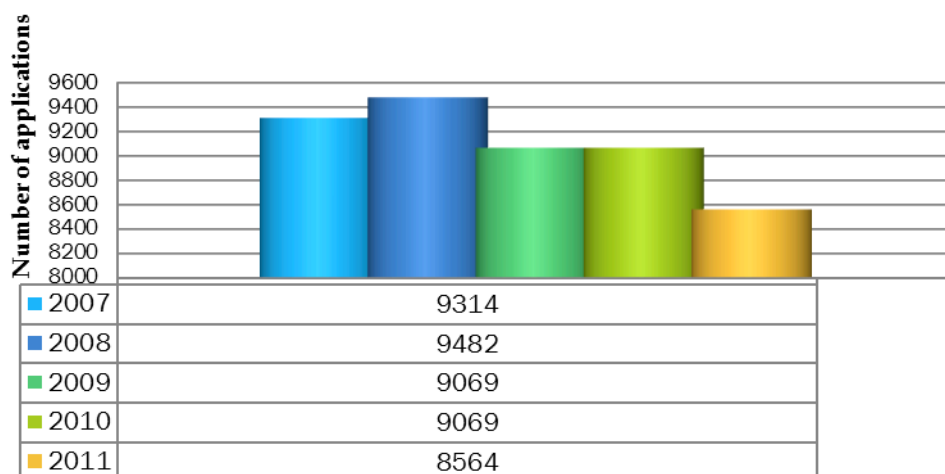


Source: WIPO Statistics Database, April 2013. Note: 2013 data are provisional and incomplete. Counts are based on the international filing date and country of residence of the first named applicant

According to figures presented by the Superintendence of Industry and Commerce (the regulating entity of intellectual property in Colombia) in the book “*Propiedad Industrial 2020*” (“Industrial Property 2020”), demand for protection of IP rights at the local level has been relatively stable with a downward trend, as indicated in the following graph.

⁷ [URL:http://www.odai.org/Odai_reporta/Boletin]

Graph No. 2
Applications for Patents & PCT under consideration consolidated per year



Source: book "Propiedad Industrial 2020" ("Industrial Property 2020") of the Superintendence of Industry and Commerce.⁸

The Superintendence of Industry and Commerce expresses the existing concern for the low production of invention patents in the country⁹. Such concern is justified because Colombia invests less than 0,4% of its GDP in science, technology, and innovation, a figure not satisfactory at all if compared with those of countries like Japan or Israel, that invest 3% and 4% of their GDP, respectively¹⁰.

This warning is more clearly perceived if one considers the growth factor of the applications for patents in different countries of Latin America and the world, and especially if that factor is compared with this indicator in middle income countries, as can be seen in the following graphs.

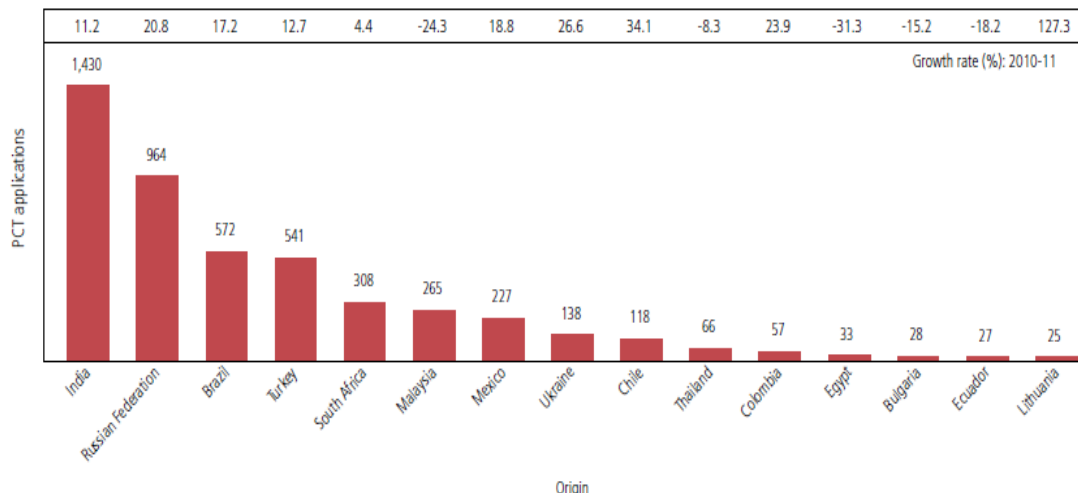
⁸[URL:http://www.sic.gov.co/recursos_user/documentos/publicaciones/Libro_PI_2020/files/libro%20propiedad%20industrial%202020.pdf p.84]

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[URL:http://www.sic.gov.co/recursos_user/documentos/publicaciones/Libro_PI_2020/files/libro%20propiedad%20industrial%202020.pdf op. cit. p.19]

¹⁰ [URL: <http://www.semana.com/foro/articulo/colombia-invierte-menos-del-04-su-pib-ciencia-tecnologia/265843-3>]

Graph No. 3
PCT applications in other middle income countries



Source: Figures OMPI 2011

Looking for an explanation that allow to understand the reason of this backwardness in the generation of knowledge and innovation in Colombia – and in spite of having exhausted the traditional mechanisms to foster these processes described by the Superintendence--, we sought for answers in the economic indicators, as common sense would indicate; however, although *Michael Geoghegan's* projections appeared to be too optimistic, they turned out to be right, since the economic indicators improved substantially: from 2008 to the present the Colombian economy has grown at a rate of 4,2 % and the International Monetary Fund forecasts that in 2014 the rate will be 4,5%¹¹. Similarly, school enrollment has exceeded the 100% margin and the country has reduced its poverty indices¹². This means, according to the IMF, that Colombia enjoys macroeconomic stability and keeps a satisfactory economic performance.

The foregoing results may lead to conclude that the economic growth acceleration, the high levels of capital investment, the investor confidence, the full school enrollment, and the efforts to protect intellectual property rights are not enough incentives to drive the processes of generation of knowledge and innovation, and that the answers to the deceleration of creations must be found in indicators such as informal employment, insufficient relevance and quality of education, inequality¹³ in income distribution and incidence of the phenomenon of armed violence for almost

¹¹ See bianual report "IMF Global economic perspectives" FMI".[URL: <http://www.imf.org/external/spanish/np/sec/pr/2013/pr13155s.htm>]

¹² [URL:<http://www.semana.com/economia/articulo/en-pobreza-salimos-vergonzoso-puesto/340414-3>]

¹³ Human Development Reporto 2013. The rise of the south: Human progress in a diverse world. United Nations Development Program (UNDP).

40 years¹⁴, which continue to keep high levels. The human development index (HDI) of Colombia is pigeonholed at the medium level, below the regional average.

Between 2010 and 2012 Colombia went from the second highest unemployment rate in the region at 12% to 10,4%; from a poverty rate of 37,2% to 32,7%; from an extreme poverty rate of 12,3% to 10,4%¹⁵; and from an extreme rural poverty rate of 25% to 22,8%. As far as growth by economic sectors is concerned, a stagnation of the manufacturing industry is being perceived in 2013, probably as a result of the crisis in the economies of the first world.

In the educational sector, despite the substantial increase of school enrollment during the last 10 years, in which it exceeded 100%, new difficulties emerged concerning its lack of relevance and low quality, high early school drop-out rates, inefficient expenditure modalities in the sector and low development levels in research processes.

According to the report "*Evaluaciones de Políticas Nacionales de Educación: La Educación Superior en Colombia*" ("Evaluation of National Educational Policies: Higher Education in Colombia") of 2013, led by Ian Whitman of the Organization for Economic Cooperation and Development (OECD) and Michael Crawford of the World Bank, the young make up almost 30% of the population in working age and about 17% of them are unemployed. The report also shows that the main universities have made much progress concerning access and quality, and fulfill international norms; but 45,4% of the students dropped out of higher education in 2010 and 39% of the Colombian young never continued their studies after high school. It goes on to say that this lack of training for the university leads to the high drop-out levels, which mainly affect low income students and, of course, will have a negative effect in their future working opportunities, salaries, and quality of life.¹⁶

The described circumstances prove that the economic development model that has prevailed in Colombia, faced with the requirements of a globalized and innovative world, begins to reveal its weaknesses, inconsistencies, and lack of correspondence, all of which demand structural changes and transition to models more in tune with the construction of a knowledge society.

¹⁴ [http://www.eltiempo.com/justicia/colombia-con-ms-desplazados-en-el-mundo_12768564-4]

¹⁵ [URL:<http://www.semana.com/economia/articulo/en-pobreza-salimos-vergonzoso-puesto/340414-3>]

¹⁶ [<http://www.bancomundial.org/es/news/feature/2013/01/24/colombia-more-success-in-higher-education-more-opportunities-for-youth>]

The Colombian IP policies, formalized through CONPES documents 3533 of 2008 (Intellectual Property) and 3582 of 2009 (Science, innovation, and technology), which aim to generate productivity and competitiveness on the basis of promoting research and development of innovation processes, in practice have translated in studies on intellectual property with no practical application and diffusion and divulgation activities on the part of the institutions in charge of devising the policies on the matter, issuing the norms and regulations to expedite and make flexible the procedures for registering new creations, and carrying out activities against piracy.

In the global sphere, IP policies have headed towards the model of knowledge-based economies, and investment of capital starts to grow in emerging economies such as CIVET in the production and marketing processes of goods with high added value as a result of research and development.

With respect to IP teaching in Colombia it can be said that the general difficulties in the educational area, such as its lack of relevance and low quality, also are evident in it because the academic community has not adopted IP as a formal teaching subject and there is no public investment to foster it.

As a result of this symbiosis of local and global policies, vital debates have flourished that require clarity on the scope of the *"knowledge-based economy"*. For example, how to define incentives to creations and innovations that do not become barriers for the production and access to knowledge? How to foster the production of patentable innovations? What is the road to generate productivity and competitiveness? How to generate inclusive IP policies [Acemoglu y Robinson: 2012]¹⁷ that promote economic growth and human development at the same time?

At this point it is appropriate to return to the concept of "Knowledge Society" and to begin answering these questions: How is this society shaped and who make up its ecosystem? What is the juridical scope of the concept of property? Who is citizen in this society? What is the extent of the meaning of the public and the private? How the culture is built in this type of society? How is the IP managed in this society? Which one is the economic model that makes it feasible?

¹⁷ ACEMOGLU, D. y ROBINSON, A. J. *Why Nations Fail*, United States, Crown Publishing Group, 2012, p. 76: "The ability of economic institutions to harness the potential of inclusive markets, encourage technological innovation, invest in people, and mobilize the talents and skills of a large number of individuals is critical for economic growth."

Based on the concept of the knowledge society, and considering that the statistically proven reduction of patentable creations and innovations is highly associated with the relevance and quality of education and research, the need to teach an innovative and renewed intellectual property takes first place in the academic environment. Moreover, such teaching must search for new frontiers that go beyond the concepts of protection, assessment, and exploitation of intellectual property rights, and look for ways to move from the manufacturing society to the society of “mind facturing”; in other words, it has to search for innovative incentives that allow the generation and access to knowledge in a framework of competitiveness and at the same time of public welfare, such as the human development model. In this sense, the IP becomes the concept of “property of the 21st century”, founding stone on which its teaching is built and which connects the country with the process of construction of the knowledge society.

These challenges imply collective agreements between all members of the society; and Colombia has begun to take steps in this direction by approaching the study of the human development model fostered by the United Nations (PNUD) and the OECD¹⁸. The Colombian experience, in this way, corroborates what has already been expounded in international forums in the sense that certain factors, such as the relevance and the quality of education, directly affect productivity, generation of knowledge, and innovation, and that economic development by itself is not enough as a mechanism to boost them. Teaching of IP becomes, therefore, one of the main driving forces in the hastening of creations and innovations in the country.

III. Why?

Evolution of intellectual property teaching in Colombia

Going back to the reasons for IP teaching (why?) announced at the beginning of this report, an approximation is made to the moments where academic thought worried about immateriality. This approximation shows that IP teaching in Colombia has gone through the following three stages:

- 1. Immaterial property as a factor in the development of commercial law teaching (from the middle to the end of the 20th century).**

¹⁸ [URL:<http://hdrstats.undp.org/es/paises/perfiles/COL.html>]

Due to postwar economic liberalism and Colombia's joining to the United Nations in 1945, the country went from a closed and protectionist economic model to one of integration and free trade. Colombia took a rout of alliances in its regional and international commercial relations because the chains of production, distribution, and marketing of goods and services acquired new modalities which in turn required special regulations for intangible goods and the construction of a law system for integration called Andean Community Law.

In this process the following events stand out: the creation in 1958 of the Superintendence of Economic Development (at present Superintendence of Industry and Commerce) with powers to handle the Industrial Property register; the subscription of several treaties and agreements such as the Paris Agreement of 1969, the Bern Convention of 1971, and the Cartagena Agreement of 1969, which gave rise in 1996 to the Andean Community of Nations (CAN) and the Andean integration system.

In the 70s Colombia was conscious of the economic and commercial importance of immaterial goods, especially as necessary elements to develop business purposes. On the occasion of the adoption of the Commerce Code (1970), the institution of "mercantile goods" was regulated in its third book and within it all matters related to patents and distinctive signs. This normative change made it necessary for law faculties to extend intellectual property teaching in the area of mercantile law.

In 1982 Law 23 on copyright was promulgated, the continental system of moral and patrimonial copyright was definitely adopted, and the National Copyright Direction was created with the function of designing public policy on the matter. At this stage intellectual property teaching was inscribed in law faculties at the undergraduate level as part of civil law (copyright) and commercial law (industrial property).

2. From the commercial right to the intellectual property protection (from the end of the 20th century to the beginnings of the 21st century).

In the 90s Colombia welcomed economic opening and the markets of literary, artistic, entertainment, new technologies, and pharmaceutical industries became particularly relevant. This situation, combined with the poverty levels of the country, provoked the increase of the phenomenon of piracy, which raised the alarm on the role of intellectual property not only as an economic development factor but also as an object of protection.

During this period the accelerated use of internet and the implementation of information systems began in earnest, which generated debates on the free disposition and access to the same. This contributed to the modernization of the State and the establishment of institutional structures and regulations oriented towards IP protection, under the principle that such protection is an incentive for the generation of knowledge. Consequently, in 1993 Andean Decision 351 about copyright protection was promulgated, in 1996 the Andean Community of Nations (CAN) was created and the 21st century started with Decision 486 of 2000 about industrial property. In the same year the so called “Internet Treaties”, approved by the OMPI in 1996 to adequate the IP to the digital environment, became effective.

IP teaching in Colombia advanced in this stage thanks to the law school of the Universidad Externado de Colombia. In a solitary bet in 1989, this university decided to bring together several lawyers with experience in the matter to start postgraduate activities under the modality of colloquiums and informal conversations that gave origin to the Center of Intellectual Property Studies. In 1997 the Intellectual Property Department of the Law Faculty was created and opened the first postgraduate program on IP in Colombia and South America with the name of “*Especialización en Derechos de Autor, Propiedad Industrial y Nuevas Tecnologías*” (“Specialization in Copyright, Industrial Property, and New Technologies”). By the middle of the first decade of the 21st century the Externado had already graduated 9 student promotions in the specialization for an average of 120 specialized professionals.

The specialization was created with the semi-classroom modality, that is, with monthly visits that allowed professionals of different parts of the country to attend, and with a duration of one year equivalent to 300 classroom hours. It is a multidisciplinary program both for students and teachers. The candidates must have a professional degree.

The curricular structure of the specialization includes a basic area and a specific area where the following subjects are addressed: general theory of immaterial goods, copyright and related rights, industrial property, new information and entertainment technologies, right to the competition, consumer rights, negotiation techniques, conflict resolution, judicial procedures, and special regimens (contractual, criminal, and tax law).

The purpose of the specialization is to train professionals in basic concepts and to bring them up to date for the exercise of IP as independent advisors, public employees, private sector employees, judges, or trial lawyers.

On the other hand, and in application of the principle of academic relevance, the University created four (4) intensification courses in private law for undergraduate students on the following subjects: "Foundations of copyright", "General licensing regime", "Patents and trademarks law", and "Contracting in internet".

Also, in 2003 the Department started "*La Propiedad Inmaterial*" review ("Immaterial Property"); four (4) research projects began on traditional knowledge, vegetable varieties, cession of patrimonial copyright, and electronic commerce. Furthermore, the Agreement against Piracy for Colombia and the agreement to fight illicit traffic of Colombian cultural goods were signed. In 2004 the Annual Congress on Intellectual Property was institutionalized.

3. From the protection, assessment, and exploitation of intellectual property towards the construction of a knowledge society (from the first five years of the 21st century to the present).

Starting in 2005 IP teaching in Colombia has been influenced by several factors such as the international policies on IP, the globalization, the era of social networks, the technological advancements, the transition from economic models based on the market of goods and services to models based on knowledge and human development, and the challenge of constructing what has been called the Knowledge Society.

In the last 8 years Colombian public educational policies have approached intellectual property in the understanding that the country's productivity and competitiveness only is possible by promoting investment in research and innovation in higher education, that is, at the level of the Universities. The joint work of the productive sector, the State and the academy also has been suggested, with the purpose of implementing models of assessment and exploitation of the intellectual property that generate wealth with a higher level of social welfare. Concepts like intellectual property management, information management, and assessment of intangible goods are present in the agendas of the institutions in charge of setting public policies and, of course, of private entities.

At the same time, political and academic discussions take place about the limits of IP protection and privileges, the starting point of the collective rights of access to knowledge, access to medications, application of public benefits derived from the generation of knowledge and innovation, the availability limits of personal information and, in general, the borders

between public and private spheres in a country with high unemployment rates, poverty, and inefficient models of education and health.

IP teaching continues to be offered at the undergraduate level in the 84 Law faculties of the country as part of the civil law and commercial law subjects. Advancements have been led by the Universidad Externado de Colombia since in addition of the teaching in the mentioned faculties, it has continued undergraduate intensification; it has graduated 17 undergraduate promotions in "*Propiedad Industrial, Derechos de Autor y Nuevas Tecnologías*" ("Industrial Property, Copyright, and New Technologies"); it inaugurated the master's degree in Law with emphasis on Intellectual Property; has a payroll of 30 expert professors, and has developed 9 research projects.

The Department issues on annual basis the "*La Propiedad Inmaterial*" ("The Immaterial property") review, which is its main mechanism of divulgation, is index-linked in category B, has issued 17 editions, and is found in 12 international repositories. Also, 12 publications by several researchers and teachers of the Department have been made. Since 8 years ago the informal academic conversations open to the general community have been institutionalized, and the virtual presence of the Department has been strengthened by its bulletin "*on line*" with a range of 1980 monthly enquiries.

In the case of the master's degree on intellectual property, the curricular structure is made up of three teaching areas: 1. Common, 2. Specific, and 3. Seminars of research development. It is a two-year program with 600 classroom hours, of multidisciplinary character (both for the students and the professors), and with the purpose of training professionals with research and critical analysis abilities in subjects that demand current and priority solutions in analogue and virtual settings. Written production in the modality of research monographs is essential for graduation.

In the last 7 years IP teaching through the specialization and the master's degree has been oriented towards the analysis of local and compared jurisprudence and the permanent updating of global concepts, theories, trends, and ideologies on IP, and the discussion and analysis of research problems of the first level.

The Department also has taken part in the national and international accreditation processes through strategies of student mobility in order to graduate masters and doctors in IP.

IV. How?

Status of IP teaching and Challenges

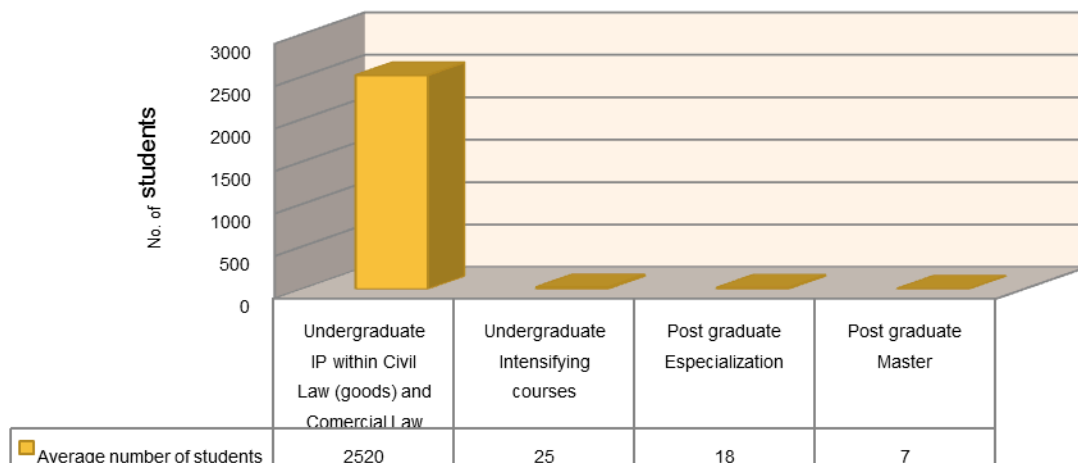
In answering how to teach IP in Colombia, the following presentation shows the status of the curricular structures of IP teaching programs in the country, the achievements accomplished, the success factors, the lessons learned, the adjustments made, the roadblocks, and the challenges implied by the purpose of continuing its teaching.

To make this analysis 3 categories are handled, corresponding to the existent teaching levels in the country: undergraduate, specialization, and master's degree.

Status of Curricular Structures

Considering that in Colombia IP is taught in an average of 84 Law faculties at the undergraduate level, and only in one of them (Universidad Externado de Colombia) at the postgraduate level, it must be emphasized that the professional career is developed in 5 years and the present IP curricular structures are inscribed in the undergraduate, specialization, and postgraduate levels (master's degree).

Graph No. 4
Average number of students by IP teaching level in Colombia per year



Source: average for the 84 law faculties accredited by the Ministry of Education for the year 2010 in the country. Study from Universidad del Cauca "Condiciones de Calidad Programa de Derecho" 2011. ("Quality Conditions Law Program"). P-13.¹⁹; together with data from bases of the Intellectual Property Department of the Universidad Externado de Colombia

The curricular structures show the following characteristics:

Undergraduate – IP concepts within main subjects of the Law career

- Profiles of the students are those of second and third years in Law.
- Basic concepts are taught and they don't make up an autonomous subject; teaching includes foundations of copyright and industrial property in civil classes – Goods in second year, and commercial law in third year.
- Duration of main subjects is one year.
- Teaching is given in all Law Faculties of the country to an average of 60 students per course.

Undergraduate – Intensifications

- Profiles of the students are those of fifth year of Law.
- Basic concepts are taught and profound study is made on some special IP subjects (biotechnology patents, vegetable varieties, electronic contracting).
- These are autonomous subjects and are taken in a block of four. Study of intensifications in law is obligatory and the choosing of the subject of the blocks is optional
- Duration of each subject is one semester of approximately 50 hour per subject.
- An average of 20 students per subject.
- Teaching of intensifications is given in one University since 2004 (Externado de Colombia).

Postgraduate – Specialization "Industrial Property, Copyright, and New Technologies"

- Profiles of the professors are those of specialists in IP with training in specialization, magister or Ph. D, with average specific experience of 10 years in intellectual property. Professional training of professors corresponds to lawyers, economists, accountants, chemists, pharmacists, scientists, sociologists.
- The students must have professional degree in any discipline.
- Duration of the specialization is 1 year equivalent to 300 classroom hours.
- It has a semi classroom modality, that is, with monthly visits of three and a half days (Wednesday to Saturday between 9 a.m. and 1 p.m.,

¹⁹ [URL:

<http://portal.unicauca.edu.co/versionP/sites/default/files/files/comunicados/2011/Registro%20Calificado%20Programa%20de%20Derecho.pdf>]

Wednesday to Friday from 2 p.m. to 7 p.m., and Saturday from 9 a.m. to 1 p.m.).

- Subjects are evaluated in each following visit and the professor is autonomous to establish the evaluation modality (written or oral examination, or written work).
- The pensum includes a basic area and a specific area. In the basic area the addressed subjects are general theory of immaterial goods, foundations of copyright, related rights, collective management, industrial property, new creations, patents, trademarks, commercial names, designation of origin, usefulness models and industrial designs. In the specific area seminars in deep are hold on the international regimen of copyright, patents and trademarks, the Andean community law regimen, the right to competition and consumer protection, the juridical procedures in industrial property and copyright, vegetable varieties, biotechnology patents, IP criminal regimen and tax law, contracts of business collaboration, alternative mechanisms for conflict resolution and negotiation techniques.
- The specialization programs are intended to give the students skills and abilities to act as IP advisors, litigants, judicial officials, or public employees. From the pedagogic standpoint they fulfill the purpose of teaching basic concepts, deepen and updating the student in the area.
- Each promotion of the specialization has an average of 18 students.
- By 2013, 16 specialization promotions have graduated.
- The teacher payroll is of 25 professors.
- On Colombia there is only one IP specialization program offered since 1997 by the Faculty of Law of the Universidad Externado de Colombia.

Postgraduate – “Magister in Law with emphasis on Intellectual Property”

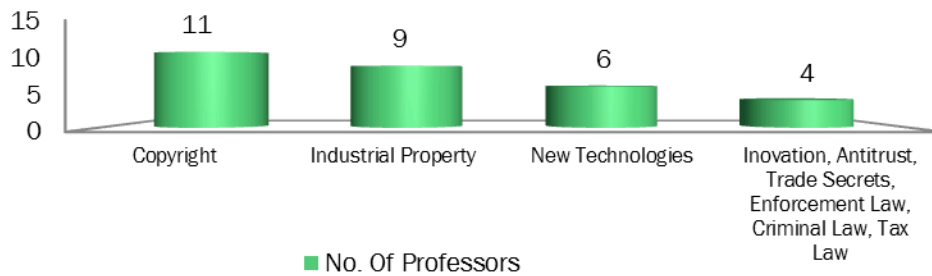
- The profiles of the professors correspond to various disciplines and they are IP specialists with training in specialization, master’s degree, or Ph. D with an average specific experience of 15 years in intellectual property. Their professional training is of lawyers, engineers, economists, accountants, chemists, pharmacists, managers, scientists, sociologists.
- The students must have a professional degree in any discipline.
- The program’s duration is of 2 years equivalent to 600 classroom hours.
- It has a semi classroom modality, that is, with monthly visits of three and a half days (Wednesday to Saturday between 9 a.m. and 1 p.m., Wednesday to Friday from 2 p.m. to 7 p.m., and Saturday from 9 a.m. to 1 p.m.).
- Subjects are evaluated in each following visit and the professor is autonomous to establish the evaluation modality.
- The pensum includes three training areas: common, specific, and seminars of research development. In the common area subjects of

transversal foundations are addressed, such as economic theories, theories of the State, public finance, science epistemology, research theory and methodology. In the specific area typical IP subjects of discussion are included, such as copyright, industrial property, innovation, assessment of intangible goods, assessment of damages in IP, incentive models, the IP and the entertainment industry, the IP in the academy. Within the area of specific training there are 6 optional subjects, of which the students must choose 3. These subjects include matters related with contents of degree dissertations chosen by the students, such as, for example, the assessment and exploitation regimen of the IP derived from traditional knowledge or the typification of new crimes against the IP. The seminars of research development include aspects of research methodologies for academic production of degree dissertations and specific subjects which are at the top of world discussion on IP, such as, for example, the patent models in the pharmaceutical sector, biotechnology patents, business models in the markets of third platform technologies, management, storage, and availability of information in the digital setting.

- The magister programs have the purpose of providing the students with skills and abilities as researchers and also in academic production.
- From the pedagogic standpoint, the program fulfills the purpose of teaching how to identify problems or situations that demand a solution in the area of IP, to develop processes of complex analysis and to make academic production with quality and empiric and intellectual relevance.
- Each magister promotion has a breakeven point of 8 students.
- By 2013, 2 magister promotions have graduated.
- The teacher payroll is of 19 professors.
- In Colombia there is only one IP master's degree program offered since 2012 by the Faculty of Law of the Universidad Externado de Colombia.

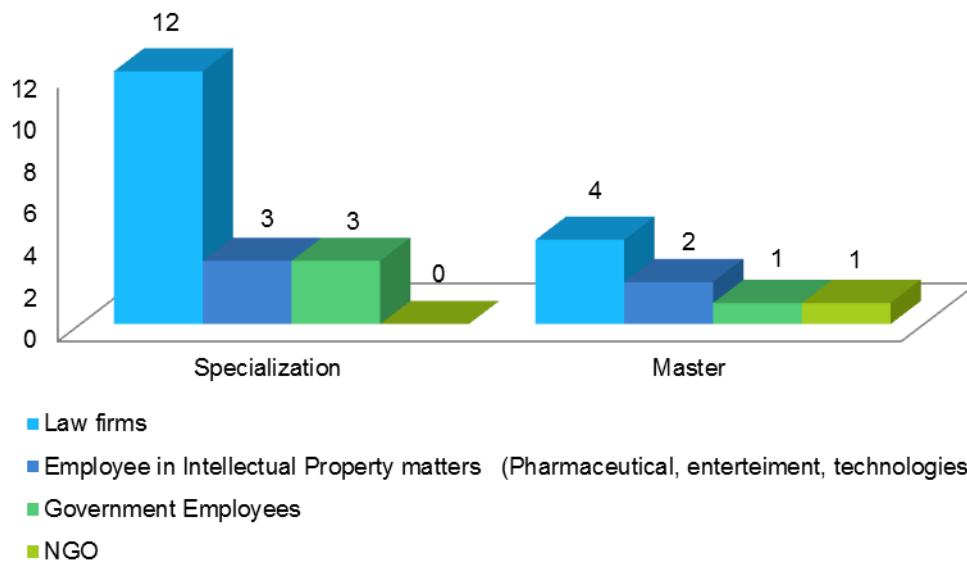
To illustrate the character of working profiles of professors and students, and the weight of each teaching area, the following graphs are presented.

Graph No. 5
Number of professors per IP teaching area



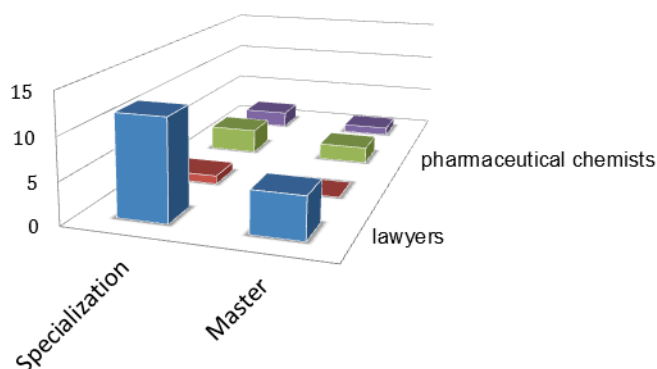
Source: Information taken from the data bases of the Intellectual Property Department of the Universidad Externado de Colombia. 2013

Graph No. 6
Average number of IP postgraduate students by professional activity



Source: Information taken from the data bases of the Intellectual Property Department of the Universidad Externado de Colombia. 2013

Graph No. 7
Average number of IP postgraduate students by area of professional training



	Specialization	Master
lawyers	12	5
economists	1	0
pharmaceutical chemists	3	2
Others (doctor, artist, engeneer)	2	1

Source: Information taken from the data bases of the Intellectual Property Department of the Universidad Externado de Colombia. 2013

Infrastructure and Budget

It can be said that in 99% of the Colombian educational offer there is no autonomous infrastructure for the formal teaching on intellectual property, since in almost 100% of cases this teaching refers to basic aspects within subjects of civil law – goods and undergraduate commercial law in the Faculties of Law. This situation is compounded by the fact that there is no public investment for IP teaching and formal teaching of intellectual property is not foreseen in the CONPES policy guidelines in this matter. For this reason, in the last years the National Direction of Copyright has developed divulgation processes through specific courses in the country and the Superintendence of Industry and Commerce inaugurated the Industrial

Property Academy during the year 2012. Although the courses offered by these institutions don't have the category of formal education, they are significant efforts in the way of reducing the percentages of ignorance on the subject prevailing among the citizenry.

It must be emphasized that in spite of the fact that public policies on education and intellectual property lack the purpose of giving an autonomous and formal IP training in the country, this is taught at a formal and independent level by a private University (Externado de Colombia), which also possesses a specific infrastructure in the form of an academic Department, a dependency belonging to the Faculty of Law. Considering that the present report is intended to show the status of IP teaching in Colombia, which implies matters such as infrastructure and budget, reference is made to the model developed by the Intellectual Property Department of the Externado, created in 1997 with budgetary and administrative autonomy.

Human Resources

Director	1
Coordinator	1
Research Adviser	1
Research Assistants	3
Teachers	6
Researchers	
Undergraduate and postgraduate professors, average number	30
Annual Budget, aprox.	US\$195,000

Lines of work:

Teaching programs

Undergraduate: (4) IP subjects - intensifications made since the year 2004.

Students average per course: 25

Postgraduate: Specialization 17 promotions - Average of graduated students: 207

Magister: 3 promotions. Active students: 16

Lines of research

The Department has three lines of research accredited in COLCIENCIAS, 9 research projects have been executed and 4 are in progress within their framework.

Publications

- Review “La Propiedad Inmaterial” (“The Immaterial Property”), index-linked and deposited in 12 international repositories. 17 issues published. It is published physically and digitally.
- Research Monographs – Book collection (6)
- Specialized books by IP teachers (12)
- Virtual Bulletin: generates reviews and specialized articles in a yearly average of 190 and reached a range of 1980 monthly.

Academic Events open to the public carried out to date

Annual Congress on Intellectual Property (9)
Informal monthly Academic Conversations. Average number (80)
International Forums in the last 8 years (8)
(7)

Academic Events of support to teaching personnel of the Department

Undergraduate and postgraduate courses of research theory and methodology in the last 11 years (33)
Pedagogy Course for master’s degree teachers in the last two years (3)

University Extension Projects

Agreement against piracy for Colombia, led by the National Direction of Copyright. The Intellectual Property Department belongs to the training committee, and the Externado is the only University taking part in it.

Agreement to fight illicit traffic of Colombian cultural goods, led by the Ministry of Culture. The Intellectual Property Department belongs to the working table on regulation and typification of crimes as the only participating university.

Construction of the Roadmap of Industrial Property for Colombia. Joint activities were developed by the Superintendence of Industry and Commerce and the Universities to build the document of public policy on industrial property for the country up to the year 2020.

IP School Project for the construction of a knowledge society. Project started by initiative of the Intellectual Property Department of the Universidad Externado de Colombia, intended to stimulate creation and innovation with a sense of construction of a citizen of the knowledge society. Under this principle, the construction of such citizenry must begin in the early years of life, that is, since preschool and school, reason why the project is oriented to work with this populations..

Achievements Attained

Considering the limited offer of formal IP teaching in Colombia, the achievements attained with the present offer are shown below.

Institutional accreditation of 9 years of the active postgraduate programs.

Accumulation of 16 years of experience in academic management of IP postgraduate programs.

Academic credibility.

Academic relevance of the programs.

Outstanding working and professional positioning of graduates of IP teaching programs.

Permanent academic production.

Participation in international forums.

Consolidation and permanence of breakeven point of the existing programs.

Success Factors

Concerning the achievements attained, the success factors to be highlighted are:

1. Interdisciplinary character of the profiles of professors and students.
2. Wide specific working experience of the teachers.
3. Subject knowledge by the teachers.
4. Participation of international teachers.
5. Large number of teachers.
6. Permanent renewal of methodologies for preparation and development of classes (seminars, workshops, case studies, professorships, etc.)
7. Permanent updating of contents and class guides.
8. Management infrastructure with financial capacity and wide experience in academic administration of undergraduate and postgraduate programs.
9. Training and permanent accreditation of scholarship professors (masters and doctors).
10. Emphasis on the study of relevant jurisprudence in the local and global spheres.
11. Low dropout index (5%).
12. Academic relevance and curricular flexibility.
13. Evaluation and permanent adjustment of the

programs.

14. Availability of academic support resources such as data bases, international repositories, library service and inter-library loans, on line and classroom seminars, specialized publications indexed to the Department.

15. Work promotion mechanisms for the students.

Lessons learned and adjustments made

The development of IP teaching at the undergraduate and postgraduate levels in the country has left several lessons learned and on their basis mechanisms of adjustment have been adopted. Following is a summary of them.

Support through tutoring and follow-up of research work as requisite for graduation.

Pedagogic support to teachers.

Permanent updating of contents.

Two way evaluation of performance, both of teachers and students.

Revaluation of subject evaluation mechanisms.

Implementation of methodologies for preparation and development of interactive classes.

Use of virtual technologies for development of classes.

Flexibilization of curricular structures.

Roadblocks

There are some circumstances exogenous from IP teaching that raise the level of difficulty for the execution of the programs. The following are some of them in Colombia:

Academic habits of the students such as low levels of reading and preparation of classes, difficulties to perform complex and critic analysis and also to produce texts, outdated, insufficient research vocation, etc.

Heterogeneity of the groups in handling basic concepts.

Low income of the students that puts dropout indicators at risk.

Time availability, since for belonging to a middle income country normally the students work for a living and do not have enough time to attend postgraduate programs.

Lack of incentive models for the study of IP.

Generalized perception of IP among the population as a mechanism to fight

piracy and not as an instrument to generate wealth and welfare.

Challenges

Given the social, economic, and educational characteristics of the Colombian context, IP teaching in the country poses important challenges [ALLMAN, SINJELA, TACAGI: 2011] in the short, medium, and long term, which in turn demand different and synergic efforts from the actors who make up the “intellectual property ecosystem”. The responsibility of IP teaching cannot continue to rest only on the Universities and it cannot be oriented only to the protection of the same.

The Universities, on their part, must reactivate their research and extension tasks, since only through the full exercise of their three missions they will be teaching IP for the construction of a knowledge society.

Short Term

To promote greater inter-disciplinary character in IP programs.

Development of university extension projects such as generation of technologically, culturally, artistically, and socially based businesses with participation of private companies and the State.

To diversify the orientation and contents of intellectual property teaching beyond the protection and towards the assessment, exploitation, models to generate knowledge, and innovation.

To conduct research in social sciences with economic relevance.

To extend the offer of intellectual property teaching to disciplines different from Law.

To connect and articulate teaching with research and extension.

Medium Term

Execution of joint projects with private companies and the State. Promotion of strategic relations and knowledge exchange.

To establish strategic alliances of working mobility between the academy, the industry, the IP firms and the State institutions.

To diversify the population object of formal teaching, research, and extension. To include preschool and school populations.

To achieve that teachers train their students in the analysis level they handle.

To pass on analysis and academic production abilities.

Long Term

To promote fellowships of IP teachers.

Interconnectivity and networks of intellectual property teaching centers.

To foster interaction in the IP ecosystem (actors integration).

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