BRAZIL-COUNTRY REPORT

by

Mrs. Elizabeth Ritter Dos Santos,
Director,
Office of Teaching Coordination and Transfer of Technology,
Federal University of Rio Grande do Sul, Paulo Gama

INTRODUCTION

In the worldwide competitive environment that we live today, the economic and social wealth of any society depends critically on the capacity of developing and properly using scientific and technological knowledge. In this context, the recognition of the strategic value of the intangible assets, as those derived from new knowledge and the intellectual property, has provided a suitable scenery to arrange full linkage among institutions producing scientific and technological knowledge, such as Universities and R&D Institutes, and companies as end users of such knowledge.

In Brazil, the reflections about intellectual property have taken place in a political and legal context: at the same time that the country had to introduce a new legislation in order to attend the requirements established in TRIPS—*Agreement on Trade-Related Aspects of Intellectual Rights*—embodying the protection in the field of biotechnology, a great discussion about ethic aspects has arisen. So, when we talk about intellectual property education and practice, we have to have it in mind: any progress in this area is heavily conditioned by Ethics.

The insertion of the intellectual property subject in the universities has been expressed, basically, in two directions: on the one hand, the increasing societies demand for professional and qualified services in the matter of intellectual property, which requires an appropriate answer of the University in terms of human resources formation; on the other hand, because of the important role the University plays in the technological innovation process, the intellectual property protection has to be embodied into the institutional routines.

At the first level, and taking into account the major mission of the university, that is education, as long as the activities related to knowledge protection are intensified in the whole society, to the University it is demanded to form human resources with a specialised knowledge required for the professional exercise in these new fields of work.

On the other hand, managing in a proper way the intellectual property register in order to promote the protection of the inventions which are developed inside the University, and carrying out its economic exploitation are important institutional strategies, that have acquired importance not only in the context of definition and

establishment of institutional policies, but mainly because of the patrimonial value of the intangible assets, which can constitute a potential source of additional resources to be obtained by the patents licensing and/or commercialisation. The acknowledgement of this new institutional attribution allows to create in the University a suitable environment for the training in the intellectual property subject.

So, we have two elements that will be focused on this report. In order to reach its aims, the university has to articulate these two dimensions described above, linking theory and practice, in a continuous feedback process.

In spite of the importance of the intellectual property protection all over the world, in Brazil, as we will see, only very recently, this scenery has begun to be outlined, at the educational level, as well as at the training level.

This paper describes the "state of the art" of the education and training in Brazil, beginning by the teaching of the intellectual property in different higher education institutions, including the Federal University of Rio Grande do Sul. After this, the management of intellectual property within the university context will be described, pointing out how this activity is carrying out influence over the academic area.

1. INTELLECTUAL PROPERTY EDUCATION AND TRAINING

In the developed world, there are many teaching experiences in the intellectual property area, mainly at graduate level. For instance, in the United States there is the Franklin Pierce Law Centre, that maintains many specific programs, at different levels, in the Intellectual Property subject, providing almost forty courses related to this matter; in Spain, at Alicante University, there is a Master's Degree Course, that offers independent courses in four modules: Module I – Patents and Industrial Designs; Module II – Trademarks; Module III – Copyrights and Related Rights; Module IV – Information Technologies Rights.

Besides these institutions, there is also the WIPO Worldwide Academy, that plays an important role in the human resources formation, through many programs, at different levels and terms of duration.

In Latin America, there are important experiences, like the Los Andes University ones, in Merida, Venezuela and in Havana, Cuba, at he Cuban Intellectual Property Office, both at Master's Degree level.

1.1. The intellectual property teaching in Brazil

The Intellectual Property Right, as a subject that integrates the university career in the area of Law Sciences, or even of Administrative Sciences, is a very new matter in the Brazilian higher education institutions.

The main reason for this is cultural: there is a lack of tradition in protecting inventions by nationals, that can be ratified by the relative small number of patents filed, annually, by national residents (2.665 residents versus 13.835 non-residents; when comparing issued patents this relation increases to 1/12,97[1]). This fact has restricted, for a long time, the market for professionals with this speciality, and as a consequence, it has not demanded an expressive need for human resources education.

Nevertheless, as long as the obligations established on TRIPS—*Trade-Related Aspects of Intellectual Rights*—have started to be put into practice in Brazil, by different legal devices (Industrial Property Law: 9.279/96; Protection of New Plant Varieties Law: 9.456/97; Copyright and Related Rights Law: 9.610/98 and Protection of Software Law: 9.609/98), the necessity for specialised professionals has increased. The demand for these kind of professionals is necessary not only to apply properly the legal devices and supervise their application, but also to produce new knowledge. It is in this context that the university's action becomes indispensable.

The teaching of Intellectual Property as an academic matter has usually integrated the Law Career, but not as a specific discipline. It has been given inside the Commercial Law or International Law subject, specifically in the context of Technology Transfer Contracts.

The preliminary analysis of academic programs of the main Undergraduate Law Courses in Brazil (University of São Paulo, State University of Campinas, Federal University of Minas Gerais, Federal University of Rio Grande do Sul, among others) shows that there are only a few cases where the Intellectual Property Right constitutes a proper subject. In most cases, this matter is given as a topic in disciplines like Commercial Law or International Law, as indicated above, and until now, the Intellectual Property doesn't have acquired, at the undergraduate level, the compatible prominence that the present stage of worldwide technological development requires.

In order to correct this distortion, many initiatives can be identified, mainly at the graduate level. The table below shows the Intellectual Property Education in the most important universities and other higher education institutions in Brazil.

---

[1] Source: National Institute of Industrial Property (INPI), 1996.

Table 1 – Intellectual Property Education in Brazil

Institution	Location	Nature[2]	Career	Level	Discipline
Federal University of Minas Gerais	Belo Horizonte, Minas Gerais		Law	Undergraduate	Information Law
Catholic University of Rio de Janeiro	Rio de Janeiro	PR	Arts Law	Undergraduate	Copyright
			Law	Graduate Specialisation Course	Intellectual Property Right
Federal Technological Education Center "Celso Suckow da Fonseca" (CEFET/RJ)	Rio de Janeiro	PU	-	Graduate Specialisation Course	Intellectual Property[3]
Getulio Vargas Foundation	Rio de Janeiro	PR	-	Graduate Specialisation Course	Intellectual Property Right
University of Rio de Janeiro State (UERJ)	Rio de Janeiro	PU	Law	Undergraduate	Intellectual Property
University of Rio de Janeiro (UNIRIO)	Rio de Janeiro	PU	Law	Graduate Specialisation Course	Entrepreneurial Law
Federal University of Rio de Janeiro	Rio de Janeiro	PU	Journalism	Undergraduate	Copyright
			Advertising and Marketing	Undergraduate	Ethics and Publicity Legislation
			Law	Undergraduate	Copyright
					Industrial Property
Candido Mendes University (UCM/ Ipanema)	Rio de Janeiro	PR	Law	Undergraduate	Industrial Property
Military Institute of Engineering	Rio de Janeiro	PU	Engineering	Graduate MBA[4]	Management and Technology Transfer
University of São Paulo	São Paulo	PU	Law	Undergraduate	International Law
Federal University of Santa Catarina	Florianópolis, Santa Catarina	PU	Law	Undergraduate	Copyright
Federal University of Rio Grande do Sul	Porto Alegre, Rio Grande do Sul	PU	Law	Undergraduate	Commercial Law International Law
				Graduate Specialisation Course	International Law
			Business Administration	Graduate Master's program	Science and Technology Management
University of Vale do Rio dos Sinos	São Leopoldo, Rio Grande do Sul	PR	Law	Undergraduate	Intellectual Property Right

Source: INPI and INTERNET *Websites*

[2] The nature can be: PU – Public Institution; PR – Private Institution.

[3] This course is given in partnership with the National Industrial Property Institute (INPI) and the "Technology Network," through the "Intellectual Property and Technology Commercialisation Network – REPICT," both from Rio de Janeiro.

[4] This course is given in partnership with the National Industrial Property Institute (INPI) and the "Technology Network," and Ricardo Franco Foundation, all in Rio de Janeiro.

As it can be observed, from the thirteen (13) identified institutions, nine (9) are public and four (4) are private ones, demonstrating the leadership of the public institutions on the Intellectual Property Education.

The Undergraduate courses are given by eight (8) public institutions and three (3) private ones; and the Graduate courses are given, mainly, by public institutions.

Although the Intellectual Property Education is important for all knowledge areas, the most frequent career where this discipline is given is the Law career, followed by Business Administration, Engineering, Arts, Advertising and Marketing, and Journalism.

As pointed out previously, only in a few cases (4), the Intellectual Property, as a whole, is given as a specific discipline; predominating the insertion as one topic in others disciplines.

As it could be realised, a significant number of courses is concentrated in Rio de Janeiro. This concentration can be partially explained by the fact that it is also in this city where the National Institute of Industrial Property is based. This Institute is in charge of processing trademarks and patent application and where a great deal of knowledge about this subject is available. Coincidence or not, it is undoubtedly that the geographic proximity is an important feature to facilitate the diffusion of opportunities, as well as to reduce costs when the matter is to create new courses, specially in such a large country like Brazil.

Even so, these initiatives are still insufficient in the national context. It is necessary, then, to enlarge the intellectual property education opportunities at all levels, from undergraduate and graduate courses, including PhD programs. In this perspective, to form human resources, which can act as teachers in new courses, is one of the great challenges to be faced in intellectual property education.

1.2. The intellectual property training in Brazil

In order to support the intellectual property in Brazil, there are many professional institutions which have played an important role in the training of people interested in improving their knowledge and carrying out their abilities in the subject.

One of those is the *Intellectual Property Brazilian Association (ABPI)*, a private institution, which is constituted by associate members. These members can participate in *study commissions*, with the aim of improving the study about Copyright and Related Rights, Software and Industrial Property.

The *ABPI* promotes conferences, seminars, discussion groups and others.

Another institution that contributes to the intellectual property training is the *Brazilian Association of the Agents of Industrial Property (ABAPI).* It is also a private institute, representative of the Agents of Industrial Property category and the attorneys who deal with Trademark, Patents, Industrial Designs and Models, Technology Transfer, Software and Geographic Indications.

This Association promotes courses, conferences, seminars, debates, and so forth. For the last 13 years, ABAPI offers the *Basic Course of Training in Industrial Property,* for office technicians, including people with a Master's or Doctor's Degree. The course is very demanded and trains, annually, about 60 professionals, including INPI officers.

It is important to point out the role played by INPI in this matter. This Institute has regularly promoted a lot of training activities, from basic courses to advanced ones, as well as Seminars which are supported by WIPO. Currently, the partnership with the Technology Network, through the Intellectual Property and Technology Commercialisation Network – REPICT, has resulted very fruitful and successful. Recently, INPI is carrying out a project, in partnership with the Federal University of Rio Grande do Sul, from Porto Alegre, RS, and the Technology Network, from Rio de Janeiro, with the aim of disseminating the intellectual property culture in Brazilian Universities and to stimulate the creation and consolidation of University Intellectual Property Nucleus, through training activities that includes courses, seminars and discussion forums.

1.3. The intellectual property education and training in the Federal University of Rio Grande do Sul (UFRGS)

The Federal University of Rio Grande do Sul (UFRGS) is a federal, public university, created in 1934. It is located in Porto Alegre, the capital of the State of Rio Grande do Sul, and is the largest university in the south of Brazil, with around 30,000 undergraduate and graduate students. Today, it is also one of the most outstanding research institutions in Brazil, carrying out almost 3,000 research projects in around 900 different areas.

The intellectual property education at UFRGS can be characterised as occasional. Two important initiatives can be identified:

(a) In the Business Administration area: after the accomplishment of a seminar in November of 1993—WIPO Seminar on Industrial Property in Universities, Research Centres and Industry—organised by the World Intellectual Property Organisation, held in Gramado, RS, its promoter, the Nucleus of Technological Innovation Management (NITEC), of the Graduate Program in Business Administration, has introduced the

Intellectual Property Management as a topic of the discipline Science and Technology Management. This program of education has been kept and improved annually.

(b) In the area of Law: following the trend of the majority of the undergraduate courses in Law Sciences of the country, the Intellectual Property is a subject dealt with two disciplines: Commercial Law and International Law. Aware of the importance of the subject, a group of research in the Masters Program in Law was implanted years ago, but it was discontinued because of difficulties generated by the lack of specialised professionals in the subject, to act as supervisors, and also because of the lack of specialised bibliography (the students had to appeal to the libraries in the centre of the country to develop their subjects of research).

Currently, the greatest diffusion of the subject and the increasing importance that Intellectual Property is assuming, a more propitious environment has been created in the academy for implantation of a research group in this theme. This is the second year that the Specialisation Course in International Law is offered, in whose context the specific discipline of Intellectual Property is developed, with professors coming from Rio de Janeiro. This can be an embryo for the creation of a specific graduate course directed to the Intellectual Property.

Moreover, the partnership that UFRGS keeps with the National Institute of Industrial Property (INPI), through the Interaction and Technology Transfer Office (ITTO), has stimulated a series of actions not only in the scope of the management and training, but also in the education of the Intellectual Property, generating propitious conditions for the creation of a Nucleus of Studies in Intellectual Property in the Graduate Course of Law, already in study phase.

On the other hand, to supply the lack of qualified human resources for the support to the intellectual property management, it has already been carried through two courses aiming to train technicians, not only from the University, but also from other institutions of education and research of the RS State. In the first course "Basic Course of Patents," carried through in May of 2000, given by experts from the INPI, 30 technicians were trained. In March of 2001, the Practical Training of Patents was carried through, in which 32 technicians were trained.

It is important to point out that the accomplishment of the training activities is not restricted to the people of UFRGS, but also to those of other public and private institutions. Thus, at the same time that it supplies an internal technical qualification, UFRGS, as a higher education institution which has its major principle to form human resources, is playing a multiplying role in the training of technicians in the area of the intellectual property, having formed professionals from diverse institutions, also out of the State of Rio Grande do Sul.

More recently, the visit of representatives from the Academy of WIPO to UFRGS for spreading out the program of Long-distance Education, found fertile land in the Law school. Moreover, WIPO has opened an important communication channel that, without a doubt, will come to contribute for the formation of human resources that will be able to act as multipliers in the training of technicians of the University.

Thus, although the experience of UFRGS in intellectual property education and training is still not consolidated, the bases for its consolidation are being constructed in the near future. In an institutional point of view, it searches for systematising experiences, either in management, or in the intellectual property education and training, and linking all the efforts to reach this objective.

2. THE MANAGEMENT OF INTELLECTUAL PROPERTY IN UNIVERSITIES

At universities, so important as education and training is the management of intellectual property. Until very recently (and even nowadays!), at Brazilian Universities, protecting the results of research through the intellectual property register, was not usual practice. Demanding secrecy of a university researcher about a research result, until giving to it effective protection, for only then publishing it, would be an act that certainly would result in conflict, mainly because publication was always the objective of the scientific work and synonymous of academic production, consisting in the parameter that indicates the qualification of the researcher. The greater was the number of publications and the quality of the vehicles where they were published, the greater was the respect and the evaluation of the researcher by its pairs and its institutions. Therefore, instead of applying a patent, it was much more interesting to publish the work, result of the research, in a specialised journal of the area.

However, since intellectual property has acquired more importance, while one of the instruments that regulates negotiations in the commerce and the industry, it proceeded to occupy place of great prominence in the new international context, not only stimulating the research and the development, but also allowing to transfer to the society the benefits generated by the technological innovations. Thus, new concepts had to be introduced and, consequently, some changes had taken place in the university.

In the Brazilian context, an important agent of the changes was the Law No. 9.279, of May 14, 1996, in force since May 15, 1997, that regulates the rights and obligations related to the industrial property in the country. In continuity, was promulgated the Law No. 9456/97, which disposes about the New Plants Varieties Protection, the update of the Law of Copyright (Law No. 9.610/98) and the approval of the Law of Software (Law

No. 9.609/98), beyond negotiations in the MERCOSUL of agreements for intellectual property protection.

As a matter of fact, what effectively introduced changes in the university environment was the Decree 2.553/98, that regulates the sharing of the economic profits on the research results, instituting, as a prize, the limit of 1/3 to the researchers. From this legislation on, the universities have felt the necessity to establish internal rules, in order to implement the procedures disposed in the Decree.

To put into practice the new legislation, hard work of "sensitisation" about the importance of the register of the intellectual property has been developed. Due to lack of tradition in the protection of the knowledge, innumerable events have been carried through, with the objective of giving awareness to the researchers about the importance of protecting research results before publishing, in order to avoid the risks of losing the rights and getting additional income from the commercialisation of the invention.

On the other hand, the protection of the knowledge introduces in research institutions a new habit in the establishment of the *state of the art*: the use of patents documents as sources of technological information, throughout it is given access to technological data of great value for the present and future knowledge.

In order to be inserted in this new context, the universities had to create proper spaces for the handling of inventions, negotiation and licensing of the technologies and patents. In the scope of these institutions, it had been spread out the Technology Transfer Offices, giving rise to a new dynamic for the handling of the university research, which includes secrecy, with adoption of restriction to the publication in any type of publication until to be done the application of the patent order in the official agency of industrial property, and the incentive to the researcher, with part of the income derived from the patents exploitation reverting to the proper researcher and the University.

In the Federal University of the Rio Grande Do Sul, it created, in 1997, the Interaction and Technology Transfer Office (ITTO), with the objective, among others, to implant the activities of management of the intellectual property, putting to the researcher disposal all the necessary ways to the protection and the commercialisation of its invents.

2.1. UFRGS advances in the management of intellectual property

The institutional landmark, in the matter of management of the intellectual property in UFRGS, is comprised in the Act No. 3.064, of November 5, 1998, that disciplines the technology transfer and the register of the industrial property in the scope of the University. This normative document constitutes an important institutional instrument

that has endorsed the relations of the University with the productive sector, and guided the actions related to the subject.

As a result of the performance of the ITTO, it has been filed, in the period of November of 1998 until May of 2001, in the National Institute of Industrial Property, 11 (eleven) invention patents, one of these in process of licensing with a national private company. Of these, 2 (two) have also been filed abroad.

Following the same procedures adopted in the implantation of the rules for the industrial property, the ITTO, jointly with a high level commission assigned for this specific purpose by the President of UFRGS, is concluding the normative one for the register of new varieties of plants and the development, application and commercialisation of genetically modified plants in the scope of the University. It has also been foreseen for this year, the edition of internal rules for the software programs and copyright protection.

In the area of the regulation, it is currently being discussed by the university community, a preliminary document, comprising the basic principles of the rights and obligations on the intellectual property of the staff without permanent link with the university. Moreover, another proposal is being elaborated in the direction to establish rights of intellectual property on the results of research developed in other institutions of education and research, for the staff with permanent link with UFRGS (professors and technicians).

Concluded these steps of regulation and putting into practice the procedures, UFRGS will be prepared for one adjusted application of the intellectual property laws, guaranteeing a greater efficiency to the processes of knowledge management and technology transfer.

In order to consolidate this process, UFRGS has promoted the training of its human resources, aiming to properly answer to the researchers demands for the register of intellectual property. In this way, the signature, in May of 2000, of the Protocol with the National Institute of Industrial Property was fundamental. By this instrument, it has been possible to train technicians, as well as to facilitate procedures like the isolated search of patents, that have the objective to improve the patenting process of the inventions created for its researchers.

Moreover, to remain itself up to date with what is new in the area, the UFRGS, through the ITTO, has been participating of important events, having, also, played an active role in national forums on the subject, like the Network of Intellectual Property, Cooperation, Negotiation and Commercialisation of Technology (REPICT), of Rio De Janeiro. Annually, the participation of UFRGS in the REPICT is growing in importance,

given to the recognition of the performance of the University, in the subject of the management of intellectual property in the context of the national university institutions.

Integrating the Regional Committee of Technological Development, of the Association of Universities Montevideo Group (AUGM),[5] the ITTO occupies an important space in the context of the MERCOSUL, participating in a work group that is studying the conciliation of the norms of intellectual property in the context of the universities which integrate the group.

Spreading out the culture of the intellectual property is a constant concern of the ITTO. In this way, in partnership with the INPI it is developing a project, supported with funding of the Program of Human Resources for Strategic Areas (RHAE), of the National Council of Scientific and Technological Development - CNPq. As results of the project are foreseen, among others, the accomplishment of five seminaries (for different knowledge areas) and four courses on specific subjects of intellectual property, besides the elaboration of a Best Practices Manual on Intellectual Property and a UFRGS Technological Management Manual.

During 2001, the ITTO will be co-ordinating, in partnership with INPI, a national project entitled "Stimulus to the creation and consolidation of Nucleus of Intellectual Property in the Brazilian Universities," which has as main objective to spread in national scope the culture of the intellectual property in the Brazilian university environment.

Finally, it is important to emphasise that, considering the little time of implantation of the institutional policy of protection of the intellectual property in UFRGS, the results already reached allow to glimpse, in a medium term, a qualitative advance that, certainly, will be expressed in tangible benefits for both the institution and, in consequence, for the country.

FINAL REMARKS

To reach the objective to spread out and to consolidate the culture of the intellectual property in the Brazilian university context, some challenges need to be faced. In the area of education, the greatest challenge, without a doubt, inhabits in the formation of qualified human resources. Once overcome this lack, it will become possible to constitute a teaching staff capable to drive research programs, that will give

[5] The AUGM is integrated by sixteen public Universities from the MERCOSUL countries: Argentina, Brazil, Paraguay and Uruguay.

support to the intellectual property education, in undergraduate level, as well as graduate ones.

Another point to be point out is the necessity to enlarge the offering of disciplines of intellectual property in a bigger number of university careers, not restricted only to the areas of Law and Management, but also including Engineering, Economy, Physics, Chemistry, Biology, among others. The more ample it will be the comprising of the intellectual property knowledge, the more will be the quality of the processes of protection of the research results, that will be expressed, among others aspects, in patents of invention more elaborated, with more descriptive reports, claims more protected.

In the area of the management, the barrier still is in the change of the organisational culture, that operates in a slow and gradual mode. Therefore, it is necessary to conjugate all the possible efforts in spreading out among the university researchers, the practical procedure to transform the invention into patent and to protect the knowledge before publicising the result of the research though publications.

Finally, it is necessary to point out the importance of measures, as already adopted by the Brazilian INPI, of reduction of the taxes for patents filed by universities. In a similar way, to facilitate the access to the knowledge through courses of long-distance education, as the WIPO is developing, constitutes an efficient stimulator to the dissemination of the culture of the intellectual property. The support of these national and international organisms is basic to stimulate and to induce to a new mentality, contributing to speed the procedures aiming to the adjusted use of the mechanisms of the knowledge protection.