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THE EMERGING NEEDS FOR TEACHING AND TRAINING.

by

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INTRODUCTION

During the past decade, there has been a growing awareness of the importance of the intellectual property system to economic and cultural development. A renewed awakening of the role of intellectual property in the countries of the various regions of the world has led more recently to the adoption or revision of national legislation on patents for inventions, industrial designs, trademarks, copyright and the transfer of technology, as well as to the establishment or modernization of government structures that administer such legislation. At the same time, the legal profession, consisting of law officers in the various government ministries, judges and legal practitioners, are attempting to respond to the need for a better understanding of the problems presented by the new technologies and by the new technological means of communication of information and ideas and of their impact on industry and commerce. In this process of change, professors and researchers at universities and institutes around the world are being called upon for inspiration, guidance and expertise.

The importance of intellectual property in the modern world goes far beyond the protection of the creations of the mind. It affects virtually all aspects of economic and cultural life. As a result, intellectual property education at the university level must have relevance for many areas of education and training.

The purpose of this paper is to review the status of teaching and research, in particular, in developing countries, and to describe some of the phenomena and distinguishing features of the emergence of a specialization in teaching and research in intellectual property.

This review and description will deal with the following:

(i) trends in intellectual property teaching programs

(ii) selecting intellectual property courses

(iii) choosing teaching materials and writing a syllabus

(iv) teaching methods and educational strategies

(v) contact among professors and researchers

(vi) the role of professors in the legislative process

(vii) research institutes for intellectual property law

(viii) relations with industry

(ix) training organized by WIPO.

TRENDS IN INTELLECTUAL PROPERTY TEACHING PROGRAMS

Teaching of Intellectual Property in Developing Countries

In an endeavour to stimulate teaching and research of intellectual property WIPO initiated a comprehensive study 25 years ago, in 1970, and published two surveys. One was on the teaching of industrial property law and the other on the teaching of copyright law. Those surveys described the number, subject matter, the level, the hours and the kind of instruction and related aspects concerning the courses given in various universities and other institutions of higher learning in some 30 countries of the world.

While the number of universities and institutions at which intellectual property law is taught has increased dramatically since that survey was made, the fact remains that in a number of developing countries, including some developing countries in the Asia and the Pacific region, intellectual property law has not yet been introduced as a course in the curriculum or is only taught as part of a course on commercial law. This is largely because of scarce resources or because the number of students interested is limited.

There are, nevertheless, a number of universities and other institutions in developing countries which have introduced intellectual property courses. They have also organized periodically, in cooperation with the government bodies and the legal profession, interested organizations, and with the assistance of WIPO, general introductory courses on intellectual property law. Moreover, in some developing countries, special courses, as well as workshops and seminars have been organized on particular subjects of intellectual property law, directed to university students, researchers from institutes, government officials, legal practitioners and businessmen, and even members of the public, having a particular interest in intellectual property law. Symposia and other meetings have also been organized, devoted to a review of intellectual property laws in the light of current economic, technological and social developments.

At the forefront of these developments in the teaching of intellectual property law have been university professors who have had foresight and have realized that intellectual property is not an abstract concept but that it is an indispensable instrument in achieving desired economic and cultural objectives. Such professors need to be encouraged and accorded the means to bring their aspirations to fruition.

Types of Intellectual Property Programs

The range of students that would benefit from intellectual property education is broad. It includes students of business, law, the fine arts, engineering, the sciences, journalism, etc. Naturally, a broad range of teaching programs should include intellectual property in their curriculum. However, of the many types of programs that might include intellectual property, three stand out as most commonly including intellectual property courses.

First, almost all business programs include some overview of the basics of intellectual property. It is important for students who hope to go into business or government to have a basic understanding of the role that intellectual property plays in the modern concepts of economics and trade. Second, basic law degree programs offer intellectual property courses that give students a general understanding of the philosophy and application of intellectual property law. Even law students who do not intend to specialize in intellectual property should be familiar with the basic rights that are protected by intellectual property law. Third, specialized post-graduate (LL.M.) programs typically provide a more comprehensive, specialized knowledge of the theory and practice of intellectual property law. Such programs are intended to supplement the often fragmentary knowledge that a practitioner acquires in his practice, by covering all of the issues that are of imporance to the protection of intellectual property.

Specialized intellectual property programs deal with three main aspects of intellectual property practice: (1) the nature and extent of rights that are available to protect intellectual property; (2) the process of obtaining and registering intellectual property rights (called "prosecution" where the filing and examination of an application is required), and (3) the process of protecting and enforcing intellectual property rights once acquired (most often this is done in the courts through civil "litigation").

Educational programs in business primarily focus on the first aspect--the nature and extent of the rights that are available to protect intellectual property. While such knowledge is only the starting place for an intellectual property practitioner, these are the most important aspects for business decision-makers and government policy planners. These programs give a basic understanding of the types of creative and technological products and processes that are protectable, the forms of intellectual property protection that are designed to protect each type of intellectual creation, and the effectiveness of the protection available. The student gains an understanding of the ways in which protection of intellectual property can enhance economic competitiveness. This understanding is even more important for the business planner or the economist who is concerned with the long-term economic health of his company or his country than for the author, artist or inventor, who is primarily concerned with the practical aspects of obtaining protection.

In addition to business programs, all basic university training programs for lawyers include courses in commercial law and property law, as well as courses dealing with civil and criminal procedures. Such courses are an indispensable foundation for a basic understanding of the concepts that are reflected in intellectual property law. Professors teaching such courses, particularly those of commercial, economic or property law, often include sections on various types of intellectual property protection, especially those which are of interest to the business or economics student.

Some university law schools include one or several classes, or even a complete program of classes, designed for students who intend to become intellectual property practitioners. These classes are designed to give future specialists a broad, if not deep, comprehension of the range of possible forms of intellectual property available. Such classes are valuable for the student who intends to help authors and inventors protect their works

under national or foreign law, and for the student who, as a business attorney, will advise his client, the company, on this aspect of law which will have great importance for its viability and growth.

Students who enter a post-graduate specialized program in intellectual property (for instance an LL.M. degree program) will typically be intellectual property practitioners who are interested in deepening their understanding of the legal foundation of intellecutal property law, and of increasing their skills in the acquisition and enforcement of intellectual property rights. Often, practitioners from one country will enroll in an LL.M. program in another country in order to gain a better understanding of the intellectual proeprty laws in that country. Such programs go into great depth on the theoretical underpinnings of the law of intellectual property. But, being designed for practitioners whose daily work consists of the acquisition and protection of intellectual property rights, such programs will also include practical classes taught by experienced practitioners, covering actual techniques of prosecution of applications for intellectual property rights and litigation to enforce those rights.

Intellectual Property Faculty

The quality of an intellectual property educational program will depend in large part on the level of experience and interest of the faculty. There are a number of full-time university faculty members in most countries who have made their specialty the study of one or more aspects of intellectual property. However, many universities do not have such specialists, and the education of students in intellectual property depends on professors who take a side interest in the field in addition to their main specialty. Recently, because of the increasing importance and popularity of the field of intellectual property, more and more professors are making this field their specialty. In addition, many practitioners who have had years or decades of experience in the practice of intellectual property law have decided to leave their practice of law and dedicate themselves full-time to the teaching of intellectual property. These former practitioners, once they have gained the necessary experience with the skills of university teaching, can make the most effective teachers of intellectual property law. Full-time law professors who decide to make intellectual property their specialty must undertake the unenviable task of mastering the maze of detailed knowledge necessary to the expert in intellectual property protection. However, the professor who undertakes this task finds in it a world of intellectual challenge and reward that makes the effort well worthwhile.

An interim source of qualified teachers that may effectively fill the vacuum left by the lack of full-time intellectual property professors consists of practicing attorneys who are willing to give part of their time (one or two nights a week) to teach intellectual property courses. Often called "Adjunct Professors", these instructors provide an effective and economical way of building a comprehensive and high-quality intellectual property program. This is a symbiotic process--it brings the benefit of many different qualified experts to a university program, providing a breadth of expertise that would not be available in a few individuals, at a fraction of the cost, and gives to the practitioner the prestige of being affiliated with a law school program,

the motivation to keep current with new developments in the law, plus the stimulus and inspiration that comes from teaching to fresh minds who engage in re-thinking old problems. Students enjoy hearing stories about the practical experiences of the expert practitioner, and the practitioners enjoy sharing their expertise with an audience which (a rarity in the life of an attorney) is eager to listen and is ready to put its faith in what is said.

Basic intellectual property courses in a law school curriculum are best taught by full-time law professors who can dedicate the time needed to counsel and guide students through the program and into the specialty that they are most suited to. Ex-practitioners who become full-time professors have the advantage of their experience in the specialized job market of intellectual property law, and often acquire their counseling skills quickly. Experienced law professors have the advantage of understanding law education and the needs of law students.

SELECTING INTELLECTUAL PROPERTY COURSES

Four types of intellectual property courses are typically taught at the university and law school level. These are: Survey Courses; Specialized Courses; Advanced Seminars; and Practice Courses.

Survey Courses are basic, broadly focussed courses, which are intended to give an overview of the various fields of intellectual property law, with enough specific facts to "whet the appetite" of students who might decide on a specialty in intellectual property. Survey courses, which may be titled, for example, "Introduction to Intellectual Property" or "Patent, Copyright and Trademark Law," are popular with business and government students, who are looking for an economic perspective on the protection of the creations of individuals. The teaching of survey courses is especially suited for professors who are just starting to teach intellectual property--they may learn, along with the students, the breadth and complexity of intellectual property protection. However, many experienced professors who specialize in intellectual property enjoy teaching survey courses because they find that the interaction with students from a wide range of backgrounds continually broadens their perspective.

Specialized Courses are courses which focus in-depth on a single field of intellectual property. Specialized courses carry titles such as "Introduction to Patent Law," "Copyright Law and Practice," "International Trademark Law," "Intellectual Property Licensing," "Unfair Competition," etc. These courses convey the particulars of the field of law under consideration, including a study of the statute, regulations and procedures involved. Court interpretation of the law and judicial doctrines in common law countries, procedures for applying for and obtaining rights, and procedures for enforcing rights are some of the topics which would be addressed. After fininshing such a course, a student should be familiar with all of the important doctrines of the field of law, and should have a good understanding of the most important standards for obtaining and enforcing rights.

Advanced Seminars are designed for students who have taken a specialized course in a particular field, and are prepared to learn more detail about one or more particular aspects of that field. An example of an advanced seminar in the patent field might be a course which examines the history of the protection of an invention, from the time that a patent application is filed, through the process of examination and issuance of the patent by the patent office, and through all stages of enforcement of the patent through litigation in the courts. In this way, the student would learn the practical application of the principles of patent prosecution and litigation that were learned in general form in the specialized patent course. Another type of advanced seminar might examine an aspect of intellectual property law which does not arise often enough to make it the subject of a specialized course. For example, a seminar on "Antitrust Aspects of Intellecutal Property Law" would fill in a gap that may have been left by the basic courses. Seminars can also give students the opportunity to prepare research papers on current issues for presentation to the rest of the class, or give the professor the chance to teach his own narrow specialty in depth, or to teach new and emerging fields such as biotechnology law or computer law.

Practice Courses focus on the actual steps that an attorney would take in practice to obtain and enforce intellectual property rights. Courses such as "Patent Office Practice," "Copyright Litigation" and "Trial Advocacy for Intellectual Property Attorneys" challenge students to do the very things that they will be asked to do in their legal practice. Practice courses are often best taught by practicing attorneys as Adjunct Professors, who will be teaching the very things that they are currently doing in their daily work.

The task of selecting the proper type of course to include in an intellectual property curriculum will depend on the nature of the students, the faculty, and the type of degree program offered. Most university programs, when they decide to incorporate intellectual property education, will begin with a modest program, offering a survey class and one or two specialized classes. They will gradually increase the number and complexity of courses as the level of student and faculty interest increases. Usually this happens quickly, and often the only limiting factor is the willingness to expand and to experiment with new types of courses.

CHOOSING TEACHING MATERIALS AND WRITING A SYLLABUS

One important, and in some ways the most difficult, aspect of teaching an intellectual property course is the selection of teaching materials. Of course, the types of materials chosen will be dictated to a certain extent by the form of the course to be taught. However, after choosing a course the instructor may discover that appropriate teaching materials simply do not exist in printed form, or that the materials needed exist in several different sources which must be combined. Where a satisfactory text is not available, where the presentation of a chosen text is to be re-arranged, or where several texts are used in combination, a proper "course syllabus" must be provided to facilitate the organization of the class and the effective education of the student.

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General Comments on Choosing Materials and Writing a Syllabus

Preparations for introducing a new course in the curriculum take time. Much labor must be exerted in compiling teaching material and reference sources on the particular area of intellectual property to be taught. Teaching materials used by other professors can be a starting point, and may even be used until the professor has had enough experience with the class to be able to choose his own materials. But some guidance and even some sort of starting material is needed. This section will aid the new or experienced teacher in selecting proper teaching materials for his or her intellectual property courses.

In all cases, a course text should be chosen which is compatible with the interests, expertise and teaching style of the professor. A new professor, or a professor who is teaching an intellectual property class for the first time, must choose a text which will educate and challenge, not only the students, but himself as well. An established text written by a recognized authority in the field will always be the safest choice for a beginning professor.

More experienced professors and practitioners, who are more familiar with the available texts, may decide to gather materials on their own, or combine resources from several different texts to reflect the course content and emphasis that they consider most appropriate. This allows the materials chosen to better reflect the instructor's own philosophy and teaching style, and prevents confusion between what is presented in class and what is read in the text. While differing points of view should always be presented, such differences are effective as teaching tools only when properly presented by the professor as such, and not when they appear to the student as differences between the professor and the text.

It is very difficult and time consuming to compile one's own course materials. However, given the relative lack of effective teaching materials available, sometimes this must be done. If at all possible, the class itself should not be used as a testing ground for the materials. Time should be taken in advance to carefully choose, review, edit and organize materials for presentation to the class.

A comprehensive syllabus covering the entire course should be presented to the students on the first day of class. A syllabus is a list of the topics to be presented in the course and the reading materials which correspond with each topic. The syllabus provides an "educational road map" for the students. An effective syllabus might separate the topics to be covered in the class in outline form, list the days that each topic will be covered, and give the names and page numbers of the reading materials for which the students will be responsible at each class. At its best, a syllabus will provide a coherent outline of the course, giving the students in advance an idea of the topics to be covered, and giving them in retrospect a guide for reviewing what they have (or should have) learned in the course. In scheduling topics for the various class sessions, it goes without saying that the amount of time spent on each subject should correspond with the importance or difficulty of the subject. However, some advanced subjects should only be mentioned in passing and should be left for more advanced courses. The choice of topics to be covered and the extent of coverage for each topic is a skill

that the professor learns only with experience. One test for the effectiveness of a syllabus is to use it as an outline for introducing the content of the course on the first day of class, and for reviewing the content of the course on the last day. This follows the effective communication strategy of "tell them what you are going to say, say it, then tell them what you said."

Choosing Materials For Particular Courses

Materials for Survey Courses are the most widely available of texts for intellecutal property courses. In choosing a text for a survey course, the instructor should take the time to review all available texts. It is often advisable to contact teachers of the course at other universities and ask which texts are used and why. A text should be chosen which gives, as much as possible, a balanced treatment of all topics. Each student in a survey course will have a different interest, and all students deserve to have their interests addressed. Intellectual property texts may also be supplemented with articles or texts which focus on the economic and political aspects of intellectual property. These may stimulate interesting discussions, and will deepen the student's understanding of the relation of intellectual property to the economic health of his nation.

Of particular interest with respect to survey courses, WIPO published, in 1988, a book entitled "Background Reading Material on Intellectual Property." This book, which will soon be published in revised form, consists of a collection of reading materials on various aspects of intellectual property law and administration. The text of this book is based on statements which appear in various publications of WIPO, for example, the commentaries to the model laws, the explanatory notes in the Licensing Guide for Developing Countries (which deals with technology transfer arrangements), the preparatory documents for, and the reports of meetings of, committees of experts and the papers prepared by the International Bureau for presentation at various seminars, workshops and symposia organized in various countries of the world. The book is intended to be used by students in courses of study at universities, in particular, by students in the developing countries of Asia and the Pacific, who are most affected by the unavailability of suitable teaching literature on intellectual property. The book is also useful to universities and other tertiary institutions in the developing countries of the region in the planning of appropriate curricula for the teaching of intellectual property law. While primarily intended for students, this book may also be of use as a reference work to government officials, attorneys and businessmen concerned with intellectual property law or its administration. To complement that basic reference work, WIPO has commissioned national supplements containing a commentary on the intellectual property laws of certain countries, so far, India, Malaysia, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand. These supplements are designed to include the basic legislative texts, judicial decisions and other legal sources specifically oriented to the country in question.

Course materials for Specialized Courses are more difficult to find than those for survey courses. The reason is simple: there are fewer students taking specialized courses than survey courses, so that the writing and publication of specialized texts is not as well rewarded. However, excellent materials are often available, especially in the patent, trademark and copyright fields.

Where a specialized text is available, careful review of the text is necessary before selecting it. The instructor should check to see if the text is written by an expert in the field, whose work will have been checked by others knowledgeable in the field. He should supplement even the best of texts with current materials which update the text and make the abstract content of the text more approachable and more interesting. Copies of actual patents, copies of industrial design registrations along with samples of the product for comparison, samples of two product labels whose marks are confusingly similar, tape recordings of two songs which are substantially similar, all give life and reality to the principles that are conveyed by a text.

Where specialized texts are not available, the instructor may select a survey text which has a comprehensive chapter on the field that is the subject of the specialized class. Often a survey text which is not acceptable for a survey course because it does not give balanced treatment to all subjects will serve well as a specialized text for the subjects that are overemphasized.

Other materials which may be adequate as texts include hornbooks, annotated statutes, cases or journal articles. While these are usually more appropriate for advanced seminars or practice classes, there are many such materials which give an excellent overview of basic principles, and can be easily rounded out by a classroom lecture.

Choosing materials for an Advanced Seminar is often simpler than for a survey or specialized course, since the materials will be dictated by the subject matter of the seminar. Sample applications and court documents can be obtained from the relevant sources. In-depth articles and studies may be distributed as a basis for discussion. A single important case may, by itself, provide sufficent material for an entire seminar, supplemented of course with commentaries and subsequent cases relying on the main case.

Practice Courses should utilize the very same materials that are used by practitioners in the field. Statutes and regulations should be referred to directly. Manuals of procedure published by industrial property offices may be purchased and studied by the students. In litigation practice courses, actual court rules and procedures should be followed. The success, quality and usefulness of a practice course will vary directly with the similary of the course to the actual practice in the field of law. If the course teaches litigation or appeals practice, the students might argue an actual case from court files, or might argue an appeal on actual briefs submitted by the parties to a case which has been decided by the appeals court. Where patent claim drafting is taught, using an invention from an actual patent will allow the students to compare their claims with those acutally issued.

Teaching Materials in Developing Countries

The availability of teaching materials on intellecutal property in developing countries can be summed up this way: there is a dearth of teaching materials especially suitable for use in the developing countries. What material is available is likely to teach law and practice that may not be applicable to the developing country.

It will, therefore, in many cases, fall to the professor himself to choose the materials for an intellectual property course. The problem then lies in the process of making available to law professors in developing countries who are interested in planning and formulating a curricula on intellectual property law the necessary documentation which they could examine and from which they could build the desired teaching materials. That documentation could include the laws and regulations of other countries, the preparatory documents prepared by the International Bureau of WIPO on various intellectual property questions which have or are currently being studied and the various reports of the committees of experts which dealt with those questions, as well as the records of the diplomatic conferences at which new treaties were adopted or existing treaties were revised on the basis of those studies and reports. Each professor knows the limits of the resources of his faculty and its perception of any new curriculum matter that could be introduced, as well as other constraints, including the extent of the interest of the students in pursuing the topics of intellectual property law in competition with another topic or other topics, perhaps more attractive and even more rewarding in that a specialization in that other topic or those other topics could lead to a greater remuneration once the student enters the legal profession.

In addition to what has been said about the documentation of WIPO as a source of the kinds of questions and possible solutions that could be the subject matter of courses and teaching materials, attention is drawn to the papers presented at the annual meetings of the International Association for the Advancement of Teaching and Research of Intellectual Property (ATRIP) during the last ten year period. It has been a tradition at those annual meetings that the experiences of the professors in planning the curriculum and in devising teaching materials would be reported upon. Their presentations are reproduced at each such meeting. A list of those presentations are available in WIPO.

In addition to the book entitled "Background Reading Material on Intellectual Property," described above, a number of other publications issued by WIPO may be of particular interest to professors and researchers. These publications are listed in the WIPO Catalogue of Publications. It is the policy of the International Bureau of WIPO to meet the requests of professors for such publications, except those that have been issued in limited quantities and because of their length are rather expensive to produce. This is the case, in particular, as concerns the records of diplomatic conferences and the international classifications, especially the International Patent Classification. Except for these, publications are sent to the professor or the researcher, without charge, and the mailing cost is borne by the Organization.

TEACHING METHODS AND EDUCATIONAL STRATEGIES

Methods of Teaching

Methods of teaching vary from country to country, from university to university, and from professor to professor. No one method of teaching will work for all instructors, and no one method will work for all types of students. However, in the legal field, there are two different basic approaches that are often used. These are the case method of teaching, and the problem method of teaching.

The Case Method of Teaching. The teaching materials which are rather well-known and widely used in the law schools of universities of the United States and the United Kingdom are based on the principles of the common law with its overlay of statutes and administrative regulations and interpretive judicial decisions. The teaching of that law, usually approached through the traditional "case method" of teaching, calls for a certain disciplinary approach on the part of the professors and the students. That teaching is not unknown in other countries but it may not be practised in those countries for a variety of reasons. Some of those reasons are attributable to the fact that the nature of the legal system that exists in the various countries in the European continent and which influences a number of countries in French-speaking Africa and in Latin America, and to a certain extent in Asia, does not lend itself to this method of teaching. The use of such teaching materials devoted to intellectual property requires that the course be constructed on the basis of those principles of common law, statutes, regulations and judicial decisions, and often requires a detailed explanation of those legal sources so that they can be understood in the light of the legal sources of the legal system in the developing country concerned.

The Problem Method of Teaching. An alternative approach to the case method is gaining popularity even in the common law countries. Under the problem method approach, a professor will describe a particular set of circumstances which raise interesting legal problems. The students will be asked to apply the relevant principles of law to analyze and solve the problem. This requires of the student not only knowledge of the law, but also effort in thinking through all of the aspects of the circumstances and applying the law to achieve a just result. The general feeling among specialists who have looked into the question of teaching methods, in particular the working group established jointly by WIPO and ATRIP, have concluded that it might be possible in the international context to present samples or models of situations reflecting intellectual property questions and how those situations are treated under the various legal systems.

Effectiveness Assessment

One of the most important and effective tools in teaching, yet one that is often overlooked, is the tool referred to as "effectiveness assessment." The most frequent method of effectiveness assessment, the final examination, is too often seen as a tool to evaluate only the student. In fact, it is an excellent tool for evaluating the instructor as well. One way to use the exam as an evaluation tool for the instructor is for the instructor to set specific goals at the beginning of the term, and to prepare exam questions that will test whether these goals have been achieved. The students' performance in answering these exam questions will give the instructor a good idea of how effective he has been in conveying his ideas.

A second means of assessing the effectiveness of the instructor is to request an anonymous evaluation of the instructor by the students. Such a survey, taken on the last day of the term, will allow the students to make suggestions for improvement of the class and of the methods of instruction, and will give the professor some much-needed objective feedback. To insure anonymity and fairness, the surveys should not be filled out in the presence

of the instructor, and should not be available to the instructor until grades have been distributed. Where the students are assured of the confidentiality of their comments, and that negative comments will not affect their grades, more objective comments will be encouraged. Questions about the quality and usefulness of the teaching materials and the syllabus are also helpful.

Encouraging Student Involvement

Another often overlooked, yet highly effective, educational tool is to encourage practical student involvement outside of the classroom. Many law schools or universities allow student participation on publications such as law reviews or journals. Many of these journals specialize in aspects of intellectual property law, and most would welcome contributions in the field. Some schools also hold conferences on various topics of intellectual property. Participation, by attending or assisting in the organization of these conferences, can provide a student with a different perspective on the field. Finally, where the educational system allows students to engage in practical employment during law school, they may work part-time for judges, lawyers or government agencies involved with intellectual property.

CONTACTS AMONG PROFESSORS AND RESEARCHERS

Contacts among professors and researchers of different countries are an essential means for enhancing the role of intellectual property and for promoting intellectual property teaching and research. In a number of countries, professors and researchers often come together to form an association to advance their common cause. However, in the field of intellectual property research and teaching, such associations are rare.

Cognizant of this, WIPO embarked on a course of action to promote contacts among professors and researchers of intellectual property law with a view to promoting awareness of the need for intellectual property teaching and research. In 1979, WIPO organized a round table of professors interested in teaching industrial property law. The International Association for the Advancement of Teaching and Research of Intellectual Property (ATRIP), which was established in 1981, stems from a recommendation that was made at that 1979 round table.

ATRIP, whose membership has reached over 250, consists of professors and researchers throughout the world. It meets annually, once every two years at the Headquarters of WIPO in Geneva, and the other year in the country of its President, who is elected along with an executive committee for a two-year term. The Association has held annual meetings in other countries, in particular at the European Patent Organisation (EPO) in Munich, Germany, at the George Washington University in Washington D.C., United States of America, at Trinity College, in Cambridge, United Kingdom, at the University of Costa Rica, in San José, Costa Rica, and at the University of Salamanca, in Salamanca, Spain. It held its most recent annual meeting in July 1994 in Slovenia. The next annual meeting will be held on July 19 to 21 in Seattle, United States of America.

At each annual meeting of ATRIP, professors in each part of the world recount their experiences, their trials and tribulations in obtaining approval of the curriculum planning committee of their faculty for the introduction of one or more courses in intellectual property law and describe the scope of the course or courses, the amount of curriculum time devoted, the teaching material, the number of the students and the level, and the results that have been achieved. Those presentations provide a rich source of thought for the content of the courses, the teaching materials and the teaching methods upon which other professors can draw in planning or reviewing their own courses.

At the national level, for example, in China, the Chinese Universities Society of Intellectual Property (CUSIP), was established in 1985. It consists of the representatives of institutions of higher learning in China, including universities and institutes of science and engineering. Its purpose is to promote the teaching and research of intellectual property.

In addition, study visits to meet with professors in other countries facilitate discussions of curriculum planning and course content, and observation of teaching methods. In the last five years, WIPO has organized study visits for professors coming from a number of developing countries. Such visits took place in France, Germany, the Netherlands, the United Kingdom and the United States of America.

THE ROLE OF PROFESSORS IN THE LEGISLATIVE PROCESS

National legislations and regulations in the field of intellectual property are being adopted in a number of countries and are constantly being reviewed in others. Such legislation and regulation need to take into account economic changes and the effects of technological advances. In most countries, the process of adoption and review is initiated by the executive branch, under which the industrial property office and the copyright office are placed and whose officials together with the law officers in the Ministry of Law or Justice usually prepare drafts of the legislation, and, subsequently, proceed to discussions among interested circles and ultimately, consideration as well as decision take place in the legislative branch.

In many developed countries, not only is there an expertise in the industrial property and copyright offices but such expertise exists in other government units, particularly, those concerned with trade matters, but also in the regulatory agencies that review or control television and radio broadcasting, or oversee the operations of firms that engage in various business practices.

In many industrialized countries, to assist the executive branch it is not unusual for it to establish a law reform commission or other special advisory body to make recommendations and even draft legislation.

Similarly, in industrialized countries, the parliaments are usually structured to include a committee or subcommittee specially devoted to intellectual property matters. The staff of such a committee are particularly knowledgeable of intellectual property matters and are constantly in contact

with the interested circles to seek out and ascertain their views on the various policy questions and solutions to be considered in the process of legislative reform.

In contrast, in most developing countries, apart from a very few senior officials in the industrial property office or the copyright office, there is a relative lack of knowledge on the part of key government officials of the policy and implications underlying considerations and practical intellectual property questions. In those countries, it is more likely that legal practitioners and law professors in the universities will play a predominant role in the process of preparing and reviewing legislation. As general lawyers or practitioners and as professors who have over the years taught subjects in the area of commercial and economic law, they have developed a certain expertise in approaching legal questions which can be applied by them in working out solutions to intellectual property issues.

Increasingly, such persons seek to expand their horizons and knowledge of intellectual property questions by undertaking comparative studies of the laws of other countries dealing with intellectual property and related questions and by seeking consultations with government authorities and circles in other countries. And, since such persons will play a crucial role in the legislative process, it is not surprising that there is a natural thirst on their part for information concerning intellectual property laws and practices in other countries.

The international community attempts to respond to this need. Such persons can spend time at research institutes, such as those described in the section below, or visiting the capitals of other countries whose legislation in the field of intellectual property is well developed. Such persons can also benefit from study visits to Geneva to discuss current issues with the Secretariat of WIPO. Within the limited resources of the budget of WIPO, which is financed by the direct contributions of governments, funds have been made available to provide assistance to law professors wishing to undertake contacts with their counterparts in other universities and with the officials in industrial property and copyright offices in other countries. In a number of instances, such arrangements have also been made with the direct assistance and help of the universities and of the government in those other countries.

RESEARCH INSTITUTES FOR INTELLECTUAL PROPERTY LAW

Teaching at the university level is never fully effective without the opportunity for professors to undertake intensive individualized research. Such research, in the highly specialized field of intellectual property, can best be done in conjunction with other researchers with the same or related areas of interest. This explains the movement in recent years toward establishment of specialized centers of research on intellectual property law, or centers which combine both research and teaching, often as a part of the law school of a university.

Legal research centers in developed countries are of course a fairly well-known feature. While centers devoted exclusively to research in intellectual property law have not been very extensively established in industrialized countries, there are some very notable exceptions. The

Max-Planck Institute for Foreign and International Patent, Copyright and Competition Law is one of the most famous, if not the most famous, center in the world for research on intellectual property law.

The objectives, structure and functions of an institution devoted to research of intellectual property law was first elaborated upon by Professor Friedrick Karl Beier, the Director of the Max Planck Institute, in a paper presented by him at the Regional Symposium on Intellectual Property Law Teaching and Research in Asia and Pacific, which WIPO organized with the State Education Commission of the People's Republic of China and the assistance of the United Nations Development Programme (UNDP) in Beijing, China, in November 1987 (cited in the list of documents issued by WIPO and ATRIP, WIPO document BIG/307, July 1, 1992). Since then, the topic of how and what research should or can be undertaken in the field of intellectual property has been discussed at annual meetings of ATRIP and in seminars and symposiums organized by WIPO in developing countries.

In the United States of America, one of the very first centers devoted exclusively to research in intellectual property was associated with the Law School of The George Wahington University and was known as the Patent, Trademark and Copyright Foundation. It subsequently became a part of the Franklin Pierce Law Center where it has flourished with the support of the legal profession and industry.

Other intellectual property centers exist, though not exclusively for research. In North America, there is the Center for Intellectual Property Law at the John Marshall Law School, in Chicago, Illinois, which combines law school and post-graduate teaching of intellectual property with research and dissemination of intellectual property information. The Canadian Intellectual Property Institute, which was recently established in Hull, Canada, is very closely linked with the government authorities responsible for intellectual property matters.

In Belgium, a Center for Intellectual Property Law has been set up at the Catholic University of Louvain. In Sweden, there is the Center for Intellectual Property and Media Law of the Stockholm School of Economics. In the United Kingdom, there is the Intellectual Property Law Unit of the Centre for Commercial Law Studies of Queen Mary College, at the University of London. In France, there is the Center for International Industrial Property Studies (CEIPI), at Strasbourg, (where WIPO, in cooperation with CEIPI, conducts each year a training course on industrial property for officials from developing countries). There is also the Institut de recherche en propriété industrielle Henri-Desbois, in Paris, the Centre universitaire d'enseignement et de recherche en matière de propriété industrielle (CUERPI) in Grenoble and the Centre Paul Roublier in Lyon.

In the Asia and Pacific Region, the Law Center at the University of the Philippines has been in operation for some years and has contributed to the analysis of intellectual property laws and has made studies on new legislation in the field of intellectual property. In China, an Intellectual Property Center was set up, jointly sponsored by the Patent Office of the People's Republic of China, the Trademark Office and the Copyright Administration of China (Univ. of Beijing, Institute of Intellectual Property???). In the Republic of Korea, the International Intellectual Property Training Institute was set up, in Daeduk, in 1991.

In these centers mentioned, organized research and research projects are undertaken by individuals and research teams with defined tasks.

Students in attendance at university law schools also engage in research to the extent that this is a requirement of a certificate or diploma or other recognition of the successful completion of their studies. So also the professors, associated with a university, or a technical institute or with a center, themselves undertake individual research or are members of a research team. The scholars at these centers have specialized knowledge in given fields of intellectual property. While these centers are not devoted exclusively to research, or exclusively to teaching, they conduct excellent programs in research, teaching and training.

Establishing an Intellectual Property Law Institute and Library: The Chinese Example

Some years ago, consideration was given in Beijing to the establishment among interested universities of a joint program or a joint center or institute for the teaching of intellectual property law. The idea was put forth by Professor Guo Shoukang, of the People's University of China, in Beijing, and he managed to advance it to the stage where serious consideration was given to it by the Ministry of Education which went so far as solicit the help of WIPO in outlining its establishment.

In responding to that request, WIPO organized for a team of specialists (consisting of Professor Dessemontet of the University of Lausanne, who also teaches at the University of Fribourg, François Curchod, who is currently Deputy Director General of WIPO and taught intellectual property law at the University of Neuchâtel, and Gust A. Ledakis, currently Assistant Director General and Legal Counsel of WIPO) to go to Beijing for discussions with officials of the Ministry of Education and with the academic leadership (the President and Vice-Presidents and Deans of the Law Faculties of the Beijing People's University, Qing Hua University and Peking University) with a view to exploring how such program, center or institute might be established and financed. It was contemplated that the program, center or institute would have associated with it universities in other parts of China, in particular in Wu Han, in Shangai and in X'ian. On that occasion, representatives of those universities came to Beijing to join in the discussions. Professor Guo Shoukang ultimately succeeded in establishing an institute within the framework of the People's University of China, in Beijing. Arrangements with other universities have yet to be concluded.

Special mention should also be made of the Patent Law Research Institute which initially formed a part of the Patent Office of the People's Republic of China, principally because of the way it was established. That Institute has an extensive collection of legal materials on intellectual property. The driving force beyond that Institute is Professor Tang Zhongshun, who is probably the most preeminent expert in intellectual property law in China. Professor Tang was also a member of the committee which considered the type of industrial property legislation the People's Republic of China should adopt and participated actively in the drafting of that legislation and in its subsequent implementation.

Some years ago, Professor Tang had the idea of establishing a collection of legal materials in the the field of industrial property that would enable the Patent Office and scholars wishing to do research, to keep abreast of developments in other countries, and to do so without having to incur the additional expense or the time to seek out such material in other countries. To assist him in his goal, WIPO provided Professor Tang with the opportunity to come to Geneva and to examine the legal materials in WIPO's very specialized intellectual property law library. Professor Tang prepared a list of the legal materials that he thought his Insitute should have.

There remained to explore the ways and means whereby these legal materials could be acquired and put in place in Beijing. Of course, so far as the legal materials consisted of WIPO documentation, the International Bureau of WIPO made copies available and sent those copies to Beijing. On the other hand, in Professor Tang's list were publications issued by patent offices and copyright offices in the various countries of the world and publications which had been put on the market by a number of commercial firms, some of which were rather expensive and for which funds were not readily available to purchase. The International Bureau of WIPO wrote to each of the industrial property and copyright offices that had issued publications of interest to Professor Tang and those offices responded and sent their publications to Beijing. The expense was borne by the industrial or copyright offices concerned. Similarly, requests were made to a number of publishing firms and to universities with the hope that they too would be willing to contribute to the collection, particularly by providing gratis the publication and also bearing the transport costs. Many firms and universities responded, some with the latest edition of the work, while others were able to send at least earlier editions which they were about to discard. In this way a rather extensive collection of legal materials was established at the Institute.

In a similar, but more modest and reduced scale, WIPO may, at the request of an individual law professor, send to him or to her documentation consisting of preparatory papers and reports and of the publications of the International Bureau of WIPO. This has been done as a matter of course, without charge. As concerns other kinds of legal materials, not issued by WIPO, the experience of Professor Tang may serve as a guide to how they could be acquired.

RELATIONS WITH INDUSTRY

Many universities and technical institutions have or would like to establish links with industry. Such a relationship involves many policy considerations and gives rise to practical questions. From a policy prospective, it may be asked what should be the role of the university and the technical institution.

Traditionally, the university has been engaged in teaching. Where research is also undertaken, that research has been usually for the sake of bringing to light either forgotten ideas or discovering new ideas and in turn disseminating knowledge of those ideas to those engaged in teaching or research and to the public in general. Should it now engage in research with the view to also developing the results of that research and taking measures

for its application in industry? The same consideration is posed in respect of the technical institutions which, however, in view of their specialized nature and their emphasis on training and research for practical application in industry, can make a stronger case for the transformation of their training and research activities into practical results in industry.

Among the practical questions that face administrators in universities and technical institutions and which are of concern also to the professors and researchers are the following:

- what should be the terms of conditions of the contract for research and development concluded between universities and the industrial firm?

- should the inventions and other innovations resulting from the research activities belong to the researchers or to the universities or to the institutes?

- who should engage the procedure leading to the patenting of the inventions? Should it be done by the professor, the researcher, the university or the technical institution or should it be done by the industry which finances in whole or in part the research and development activities that have resulted in potentially commercially viable inventions?

- what should be the terms in condition of the license agreements or other technology transfer arrangements for the exploitation of those inventions and innovations?

- should assistance be sought from State agencies and/or from private intermediaries which provide technical support and advice in the marketing of research results achieved at universities and technical institutions?

- if government agencies do not exist, should government take an active role in creating such machinery?

- should the universities or the technical institutions take the initiative in establishing a special office to provide advice on patenting and commercialization?

Such policy consideration and practical issues have received in-depth attention in universities and technical institutions and by industries in developed countries.

On the other hand, in developing countries these matters have come to the forefront only lately.

In India, there is a very close relationship between research activities in the universities and industry, principally in connection with the various national research centers, which are associated with some of the universities, and state enterprises which draw upon the research results of those centers.

In China, there is a widespread practice of establishing at the universities or in the technical institutes an agency to deal with patent matters. Certain of those agencies serve not only to advise the universities or the institutes on the patentability of the inventions resulting from their research projects but also to actually handle the application for the patent before the Patent Office. In certain others, such advice and legal assistance is given by state enterprises and other firms not necessarily connected with the universities or the technical institutes. Such a patent agency usually consists of a number of persons at the professional level who are graduates with a speciality in science or engineering and who are also trained in the law, or at least in the law of intellectual property. In addition, such an agency may conduct courses in the field of intellectual property for under-graduate students and post-graduate students and also hold seminars or training courses for employees in government bodies or state enterprises. Some of the patent agencies form part or are associated with a law firm composed of members of the law faculty of the university. Patent agencies of the kind described have been set up in Beijing at the Peking University, at the People's University of China and the Qing Hua University, and in universities in other cities of China, including Wuhan, Shanghai and X'ian. The Chinese experience in this respect has been described in papers presented at the Regional Symposium on Intellectual Property Law Teaching and Research in Asia and the Pacific, organized by WIPO' in cooperation with the State Education Commission (SEC) of the People's Republic of China, and with the assistance of the United Nations Development Programme (UNDP) in Beijing in November 1987.

In other parts of the world, particularly in countries having had a planned economy and which are making a transition to a market economy, namely, in the Newly Independent States of Eastern and Central Europe and of Western Asia, there is evidence that some kind of institutional framework, patterned after the technology offices of universities in the industrialized countries or after the model of the patent agency of the kind established in Chinese universities and technical institutes, is being put into place.

To meet a growing need for information on the subject, the annual meetings of ATRIP usually include as one item of the agenda the commercialization of the results of university research. Papers on this topic have been presented by leading experts drawn from universities and from government authorities. Their papers are included in the list of WIPO-ATRIP documents.

WIPO embarked more specially on the subject when it organized, in 1990, in San José, Costa Rica, in cooperation with ATRIP and the University of Costa Rica, a symposium which afforded to the participants from universities and technical institutions in Latin American countries, an opportunity to consider relations between universities and industries and the role of intellectual property in those relations. Since then, aspects of this relationship have figured on a program of a number of meetings organized by WIPO in developing countries on the subject of intellectual property teaching and research. It is by no accident, therefore, that the program of this very meeting includes as one of its topics the commercialization of the results of research projects in universities and technical institutes. The subject of the relations between universities and technical institutes, on one hand, and industry on

the other hand, and the role of intellectual property in that relationship is one which is receiving increasing attention and to which WIPO will continue to devote its energies and resources.

TRAINING ORGANIZED BY WIPO

WIPO has attached great importance to assisting developing countries in the field of intellectual property through its development cooperation program. The objective of the said program is to assist developing countries in the establishment or modernization of intellectual property systems in accordance with their development goals through, among other things, developing human resources; organizing global, regional and national training courses and seminars; fostering teaching of, and research in, intellectual property law and developing the profession of intellectual property lawyer and agent.

The training organized by WIPO is given to government officials and personnel from the technical, legal, industrial and commercial sectors in the form of courses, study visits, workshops, seminars, training attachments abroad and on-the-job training by WIPO officials or consultants.

With a view to providing or enhancing professional skills and capacities for the effective administration and use of the intellectual property system, each year, WIPO organizes training courses in many countries, frequently in cooperation with various national, governmental and intergovernmental institutions, on various aspects of intellectual property. Most of the courses, workshops and seminars are organized by WIPO in developing countries. They provide basic knowledge of industrial property or copyright and neighbouring rights, or specialized information in areas such as legal and economic aspects of industrial property, the management and use of patent inventions including computerized patent information data bases (including the use of CD-ROM technology), computerization of industrial property office administration, collection and distribution of copyright royalties, and the promotion of technological inventiveness. In 1994, some 100 such training events were organized at national, subregional, regional and global levels.

The regular training program of WIPO comprises three levels of courses: introductory courses, advanced courses and specialized courses.

Introductory courses are usually organized at a national or regional level, and are mainly designed for persons who, although employed in Government departments or organizations concerned with industrial property or copyright matters, have little or no background in those fields, as well as for officials who are not in charge of the day-to-day implementation of their country's industrial property laws, but whose responsibilities require some familiarity with industrial property or copyright matters.

Advanced courses are organized at a regional or an interregional level, such as the advanced course on the legal, administrative and legal aspects of industrial property yearly organized in cooperation with the Center for International Studies of Industrial Property (CEIPI), in Strasbourg, France, or on the legal and administrative aspects of trademarks yearly organized in cooperation with the Benelux Trademark Office in The Hague, the Netherlands. Participants in such courses are officials who have already some working experience in the relevant aspects of industrial property.

More specialized training courses are also organized for small groups of patent examiners or practitioners from all regions, such as the courses yearly organized in cooperation with the European Patent Office entitled "Technical Information as an Aid to Industrial Development: Patent Documents," in The Hague and Vienna, which focus on the use of patent documents as a source of technological information and on the most advanced technology (such as CD-ROMS) for access to and the retrieval of such information, or the specialized courses on patent search and examination also organized in cooperation with Industrial Property Offices such as the Swedish Patent and Registration Office in Stockholm (Sweden) and the Netherlands Patent Office (OCTROOIRAAD) in The Hague (the Netherlands).

Such courses are meant for officials from industrial property offices, government departments dealing with industrial property matters and industrial and technological development, and also from public research and development (R & D) institutions, who are users or potential users of patent information.

In the field of copyright and neighbouring rights, courses are organized to provide basic knowledge of collection and distribution of royalties.

In the framework of its general training program, WIPO also holds orientation seminars on industrial property (since 1978) and on copyright and neighbouring rights (since 1988) at the headquarters of WIPO. At these Seminars, general introductory courses are organized for trainees from developing countries. The general introductory courses, are followed by specialized training courses organized by WIPO in cooperation with various industrialized countries or the European Patent Office, or followed by individual training programs in national industrial property offices, private law firms etc., of a duration of between one and four weeks.

Furthermore, in 1993 WIPO introduced a new form of training in the field of intellectual property by organizing for the first time three sessions of the WIPO Academy (in English, French and Spanish). The target group of that form of training are middle or senior level government officials who, in the field of intellectual property, are instrumental in the policy-making process of their countries. The objective is to present to the participants the main elements and current issues in the field of intellectual property, focusing on the policy considerations behind them. Such approach is expected to enable the participants, after their return to their respective countries, to participate in the formulation of government policies on intellectual property questions, particularly the impact of those questions on cultural, social, technological and economic development. In 1994 two sessions of the WIPO Academy were held (for officials from Asia and the Pacific countries in English and for officials from Latin America in Spanish). This year there

were also two sessions of the Academy held (for officials of the African, Arab region and the Carribean in English and another for the African region in French). Lectures were delivered by outstanding outside specialists from industrialized and developing countries, and by WIPO officials. A Course Coordinator was assigned to each session to stimulate interactions and exchange of experience among the participants and between the participants and the lecturers.

230 Speakers

WIPO bears, under its regular budget, full or part of the travel and subsistence expenses of the participants. The contribution, in kind or in cash, of the host Governments or institutions which co-sponsor the courses, share some of those expenses. As a reference, the WIPO budget for training activities for 1994-1995 is 1,880,000 Swiss francs.

WIPO organizes study visits, particularly for nationals from developing countries, in various countries and at WIPO headquarters, in order for the visitors to have a better understanding of certain aspects of intellectual property in which they are interested. The organizations they visited include national and regional intellectual property offices, courts, intellectual property law firms, industrial property departments of large companies, associations of industrial property practitioners, societies of authors and composers, inventors' associations and universities in different countries as well as the International Association for the Protection of Industrial Property (AIPPI) and its national groups.

In organizing training courses, WIPO, depending on the necessity invites such outside experts as officials of national or regional intellectual property offices, intellectual property practitioners, judges, legislators, university professors, industrial property counsels of large companies, and licensing executives to give lectures on their practical experience which may be used for reference in dealing with the present or future problems of the participants. For the period 1993-1994, some 230 outside experts were invited by WIPO as speakers, about 33% of whom were nationals of developing countries.

Practical exercises are sometimes given to participants at some courses organized by WIPO. For example, exercises concerning the correct filing of an international application under the PCT are taken by the trainees at some PCT courses. These exercises may include how to prepare a request form, and subsequently, a demand form requesting international preliminary examination under PCT Chapter II, based on information indicated in the exercise; what should be done under some circumstances such as where the inventor dies during the international processing, or the designation of a certain country has been forgotten when the international application was filed, or the priority date relating to the earlier application was incorrectly stated in the request.

In organizing a judicial course, WIPO often combines it with "mock trials", in which real judges and trial lawyers invited by WIPO to attend the course deal with typical cases involving intellectual property law in the "mock court". After a trial, there is a discussion between the judges, lawyers and the audience. Such mock trials usually arouse great interest. At the judicial courses jointly organized by WIPO and the Supreme People's Court of China in the last ten years, several mock trials were organized, and the proceedings were recorded on videotapes which were shown in many places of the country and viewed by thousands of interested people.

WIPO regularly brings about publications which cater to general and special demands. Among those are intellectual property teaching materials, guides, model laws, publications of papers presented in WIPO meetings, etc. These include Background Reading Material on Intellectual Property (together with national supplements), Patent Agents' Manual, PCT Applicant's Guide, Licensing Guide for Developing Countries, Introduction to Patent Law and Practice, Introduction to Trademark Law and Practice and two monthly periodicals "Industrial Property" and "Copyright" as well as a quarterly journal entitled "Intellectual Property in Asia and the Pacific."

During the past 28 years, some 44,000 individuals participated in training courses and seminars sponsored or co-sponsored by the International Bureau, of which some 7,500 individuals benefitted from fellowships financed or co-financed by WIPO. Those 7,500 beneficiaries were from 139 developing countries, two territories and 32 organizations of developing countries. The United Nations Development Programme (UNDP) is one of the main contributors in the development cooperation program of WIPO. The list of countries in the Asia and Pacific region which have benefitted from fellowships in the fields of industrial property and copyright for the period 1980 to 1994 is shown in the Annex.

During 1994 some 9,000 men and women from both the government and private sectors of some 103 developing countries and seven intergovernmental organizations of developing countries benefitted from the WIPO activities related to human resource development, 1050 had their travel and living expenses, or both, borne by WIPO; the rest of the participants were local residents.

CONCLUSION

Universities and other institutions have contributed and will continue to contribute to the training of the persons who will be the legislators, judges, administrative officials, legal practitioners, and even the teachers and researchers, of tomorrow. Research institutes have contributed and will continue to contribute to the analysis of the intellectual property system and make suggestions for its betterment. Present and future generations, one after the other, will be called upon to create, apply and improve that system. But to do so, each generation must have knowledge. But general knowledge, and even a legal knowledge, does not suffice. What is needed is specialization that is part of a legal education that is in turn based on a solid foundation of learning in the sciences and of humanities.

Further, greater support must be given to research institutes, so that a constant evaluation of the functioning of the law governing the objects of intellectual property can take place and lend support to the teaching process and serve as a foundation for legislators, judges and administration officials to review the prevailing policies, principles and practices.

Universities and technical institutes must receive appropriate guidance so that their technological achievements are made more widely and rapidly known and be disseminated, not only to other researchers, but applied in industry, so that those results may be recognized and an appropriate reward be received through their exploitation in industry and commerce for the skills, the time and other resources that have been used to bring about those results in technical achievements.

Finally, the process of intellectual property teaching and research can only be effective if resources are committed to teaching, to reserch and to the effective organization of educational and research programs. To fulfill those requirements, government and various sectors of the economy, as well as the educational community must work together. The tasks are too large for any one of them to proceed on its own. Each must help the other. Each must also offer to join their counterparts in other countries to identify their interests in common, so that the mutual assistance through international cooperation can be brought to bear.

The World Intellectual Property Organization (WIPO) stands ready to help governments and the educational and research community in the tasks of evaluating, selecting and applying the system of intellectual property law teaching and research that best suits the pursuit of the goal of government and the interests of industry and commerce in meeting the needs of the public, while preserving the traditional role of independent educational and research institutions as the bastions of learning and scientific investigation.

[Annex follows]

INDUSTRIAL PROPERTY AND COPYRIGHT
LIST OF COUNTRIES/ORGANIZATIONS TO WHICH FELLOWSHIPS HAVE BEEN AWARDED
(FROM 1980 TO 1994 INCLUSIVE)

6699C, p.3 ams 19.12.94, rev.13.01.95

Country/Organization	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	TOTAL
Afghanistan	–	3	–	–	–	1	2	–	–	–	–	1	–	–	–	–	7
Bangladesh	4	4	3	3	1	5	11	9	7	3	3	6	9	14	12	–	94
Bhutan	1	1	–	–	–	–	3	–	1	–	–	–	1	4	6	–	17
Brunei Darussalam	–	–	–	–	–	–	1	–	–	–	–	–	–	–	7	–	8
China	11	12	–	23	9	13	21	24	26	42	31	36	14	30	28	–	320
DPR of Korea	2	4	4	2	–	–	2	4	3	2	11	3	2	6	9	–	54
Federated St.of.Micronesia	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	2
Fiji	1	1	2	1	2	2	1	1	2	1	3	1	2	3	9	–	32
India	3	4	3	7	4	9	11	18	13	19	15	10	19	32	25	–	192
Indonesia	4	1	4	4	7	7	12	11	9	8	13	14	13	21	30	–	158
Iran (Islamic Rep.of)	–	–	–	–	3	2	5	–	1	3	2	1	4	4	5	–	30
Kiribati	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	2
Laos	–	–	–	–	–	2	–	–	4	3	2	–	1	2	4	–	18
Malaysia	–	–	2	1	8	12	21	15	13	19	7	3	8	14	25	–	148
Maldives	–	–	–	–	–	1	1	1	1	–	–	–	–	–	–	–	4
Mongolie	2	3	–	–	1	1	2	3	2	4	9	5	8	11	12	–	63
Myanmar	–	–	–	–	2	–	–	–	–	–	–	–	2	1	2	–	7
Nepal	1	2	3	2	3	3	4	6	2	1	3	3	4	4	4	–	45
Pakistan	2	5	2	3	5	3	11	10	3	3	6	5	8	7	7	–	80
Papua New Guinea	–	1	1	1	2	4	3	5	2	–	1	–	–	2	1	–	23
Philippines	3	4	3	9	8	15	16	22	20	20	11	13	15	17	22	–	198
Republic of Korea	5	3	8	3	3	5	19	16	14	21	18	7	11	11	8	–	152
Republic of Palau	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Samoa	–	1	1	–	–	1	1	1	2	–	2	–	–	2	1	–	12
Singapore	1	–	–	2	2	–	1	7	1	6	1	4	7	10	7	–	49
Solomon Islands	–	–	–	–	2	1	–	–	1	–	3	–	–	2	–	–	9
Sri Lanka	1	2	–	2	1	6	8	7	5	2	2	2	6	13	8	–	65
Thailand	9	8	6	9	10	9	20	20	10	20	8	11	11	17	18	–	186
Tonga	–	1	–	–	1	–	1	3	–	–	3	–	–	2	2	–	13
Tuvalu	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	2
Vanuatu	–	1	–	–	–	1	–	1	–	–	–	–	–	2	–	–	5
Viet Nam	–	2	2	2	5	6	11	11	8	20	18	7	13	16	13	–	134
Cook Islands [territory]	–	1	–	–	–	–	–	–	1	–	1	–	–	–	–	–	3
Hong Kong [territory]	2	–	–	–	–	–	–	–	–	–	–	1	–	3	2	–	8
CISAC.Asia and Pacific	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
IFIA.Asia and Pacific	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	2
Beneficiaries: 32 countries, 2 territories and 2 organizations	**52**	**65**	**44**	**74**	**79**	**109**	**188**	**196**	**153**	**197**	**175**	**133**	**159**	**253**	**267**	–	**2144**

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