Collection of Papers

presented at the
ATRIP
Annual Meeting

Geneva, July 7 to 9, 1999

World Intellectual Property Organization



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INTERNATIONAL ASSOCIATION FOR
THE ADVANCEMENT OF TEACHING
AND RESEARCH IN INTELLECTUAL
PROPERTY (ATRIP)

WIPO/ATRIP ELECTRONIC CONFERENCE ON STRATEGIES FOR INTELLECTUAL PROPERTY TEACHING IN FACULTIES OF LAW, BUSINESS AND ENGINEERING (NOVEMBER 16, 1998 – MARCH 1, 1999)

FINAL REPORT

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Introduction

This first electronic conference was organised by WIPO, with the support of ATRIP. The format of the conference was an experimental one. Most of the discussion took place through an e-mail list on the basis of a set of questions that had been drafted and circulated in advance. The discussion was guided by the conference moderator. The moderator provided a weekly summary of the discussion. The members of the moderator's panel took it upon themselves to stimulate the discussion. In a final stage of the conference live Internet sessions were set up to finalise the discussion.

Overall the moderator and the panellists are happy with the outcome of the proceedings. The live Internet sessions were useful, but they were as much an attempt to master the technological aspects of such a venture as a substantive contribution to the conference. It should be remembered though that as a result of this experiment we are now in a position to use the technology successfully on future occasions.

This final report aims to summarise the proceedings of the conference and to come up with some recommendations. In terms of format it will address each of the questions on the original list of questions in turn. The report should be read in conjunction with both the moderator's weekly summaries and the archive of all contributions to the conference. The latter items can be consulted through the conference's web site.

Question 1:

Which IP subjects should be included in course programs designed:
- *For law students?*
- *For business students?*
- *For engineering students?*

Most answers which we received hardly distinguished between the three categories of students.

It was felt that any curriculum should include at least a basic introduction to the national law provisions on copyright, designs, patents, trademarks, unfair competition, trade secrets, utility models and database rights. On top of that the students should be introduced to the international conventions that govern this area. The priority that is given to national law is particularly apparent in the Anglo-Saxon world. In a Continental-European model the conventions can also appear as an introduction to the more detailed national provisions.

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Some participants suggested that the business students should only be exposed to the basic principles, whilst the law students should be asked to proceed to a more detailed analysis. These participants also suggested that engineering students only need to know the details in the area of industrial property (specifically in the areas of patents and trademarks).

It was also suggested that all students should be made aware of the commercial importance of intellectual property and of its relationship with research and development. Engineering and business students should also be introduced to the method and the strategies to secure exclusive rights (including the application procedure). To complete this list of additional subjects, most participants seem to agree that employment related issues such as employee inventions or creations should receive a place in all intellectual property courses.

Question 2:

What should be the length of such programs for each group of students?

Very few contributors gave a detailed answer to this question. Those that did, did not always agree on the length that is required for such a course. Suggestions varied between 10 and 70 hours. A lot depends on the method of teaching. Ten hours of lecturing may be sufficient if it is followed for example by one or two hours of seminars or in-depth case studies per week for the rest of the academic year and if the students are asked to do a lot of reading in preparation for these sessions. In case virtually no seminars or tutorials are organised the figure of 70 hours, or roughly a two-hour *ex cathedra* lecture each week for 35 weeks or three hours each week for 23 weeks, becomes a viable alternative.

The moderator and the panellists have a strong preference for a system that combines introductory lectures, with in-depth seminars and case studies if this can be fitted in with national traditions and regulations. We feel that most of the participants agree with us on this point, especially when they talk about the ideal system or method.

The method of delivery does not seem to differ substantially between law faculties on the one hand and engineering and business faculties on the other hand. It could be the case though that certain engineering and business studies programs are too short to accommodate a one-year IP course. For those cases a one-semester course comprising half the number of contact hours could be envisaged.

Question 3:

At which stage of the studies program should the above-mentioned IP courses be offered:
- *For graduate studies?*
- *For postgraduate studies?*

The division between the Anglo-Saxon countries and the more Continental European orientated countries surfaced again in the discussion that followed this question. Anglo-Saxon countries have in general terms a shorter degree structure. Often the total length of the degree course in no more than three years. In that context most specialised intellectual property courses are necessarily reserved for the postgraduate level. At most the undergraduate curriculum can offer an optional introductory course. Those countries with a longer degree (e.g., four or five years of study) show a different pattern. There an

intellectual property course can be offered in the final year of the undergraduate program. Obviously, this does not exclude the possibility to offer further specialisation by means of postgraduate courses.

Question 4:

Should IP courses be optional or obligatory:
- *For law students?*
- *For business students?*
- *For engineering students?*

Many participants responded to this question, although not all respondents offered an opinion in relation to each of the sub-questions dealing respectively with law students, business students and engineering students.

In relation to teaching IP to law students, nine participants were of the opinion that such teaching should be obligatory, whilst six felt it should be optional. As far as business students are concerned, six believed it should be obligatory and the same number believed it should be optional. The strongest support for obligatory teaching of IP came in relation to engineering students – 11 participants felt it should be obligatory, whilst only three felt it should be optional.

A closer analysis of the responses is interesting. The responses can be categorised by whether the respondent is teaching law in a common law system, teaching law in a civil law system, or is teaching in a non-law discipline (e.g., business or engineering). The common law teachers were split evenly on whether IP should be obligatory or optional for law students. However, by a ratio of 2-1 common law teachers favoured IP being optional for business students, and by the same ratio they favoured IP being obligatory for engineering students. The civil law teachers had a different view. By a ratio of approximately 4-1 they favoured making IP obligatory for each of law, business and engineering students. The teachers in a non-law discipline, whilst few in number, almost completely supported making IP obligatory for all types of students.

Some additional comments were made by a few respondents, which are worthy of note. It was stated by a US IP law teacher that IP must remain optional, given the structure of the US JD program. A number of IP teachers from other common law countries responded that the structure of law degrees in those countries also required that IP be optional. A proper study of IP requires a grounding in core law subjects, including property. This means that IP can only be offered in the later years of the law degree, with the consequence that it can only be an optional subject. In contrast, the strong support from civil law IP teachers for making the subject obligatory suggests that such structural difficulties are not a problem in those countries. A number of teachers responded that IP was so popular with their students that there was no need to make it obligatory.

In summary, there was a diversity of opinion in relation to making IP teaching obligatory. It would seem that for certain countries, this is not practically feasible, whatever might be its theoretical attraction.

Question 5:

Which teaching materials do you recommend? Please specify whether these materials are suitable for law students, engineering students and/or business students.

This question drew a more limited response from the participants. A number of participants identified the texts and case books used in their institution. Of course, these differed greatly from country to country, and to a lesser extent within a country, showing the diversity and range of IP teaching material available. These publications were often supplemented by, but only occasionally replaced by, materials prepared by the individual teacher. Some teachers have prepared very detailed curricula and reading lists.

Of more general interest were the responses mentioning Internet resources. A number of respondents said that they identified in their IP teaching materials, and/or had links from their own IP subject web site to Internet IP resources. Those resources were most commonly the text of national IP laws and the text of national cases on those laws. In addition, use is made of the WIPO web site, to provide the text of international IP treaties. Further, some use is made of the web sites of patent offices, including the USPTO, the EPO, the UKPO and the German PO—mainly, it seems, for access to the text of legislation. One respondent, not an IP teacher, encouraged the use of "web-based training whenever possible," although no details of any particular web-based training package were identified.

In summary, there seems no shortage of print publications available to most IP teachers. Those publications deal predominantly with the law of the local jurisdiction. There is a clearly identifiable use of electronic resources. Many of those resources appear to provide texts of the legislation and cases in the local jurisdiction. Some use is made of web sites providing international material. There seems to be a potential for the use of web-based training packages, although none were actually identified.

Question 6:

How should IP be presented to law students? Do you favour the one comprehensive course approach or would you prefer separate courses for each topic relative to the industrial property or copyright?

The difference between industrial property and copyright has fortunately been replaced by the concept of IP law, which aims to protect the product of intellectual in contrast to physical activities. Facing the important changes that the technological developments constantly impose, it is necessary to consolidate the concept of non-material property, which is the main purpose of IP.

Keeping the distinction that has been traditionally applied in this field would imply stopping an evolution to which society has a right. We do not mean by this that the specificity of these major areas should be eliminated. What we suggest is that, for the sake of convenience, both areas should be merged in undergraduate syllabuses, since they are not intended to train experts (this is the goal of postgraduate courses).

Considering that law students are taught notions of IP in elementary and intermediate courses, IP law courses for last year students should be highly integrating. The contents of the syllabus should qualify the future lawyer to advise potential clients (e.g., artists, writers,

inventors, promoters) and also to work in administrative (registration, assignments, contracts) or judicial functions (infringements, offences against IP law).

The way the syllabus is to be taught depends on the study system used in each faculty (or school). Seminars are advised for short terms, since students are acquainted with the terminology and basic knowledge of the area. On the other hand, if we have a year-based system, presentations and conferenees could be arranged. We came to the conclusion that even those participants that work with a semester model that favours shorter and more specialised courses agree that all aspects of intellectual property should be covered, even if the course is nominally split up into several modules.

Question 7:

How should IP be presented to the non-law student groups? Which teaching formats and methods do you use? Which formats or methods would you recommend?

The teaching of basic elements of IP should be included in all undergraduate syllabuses, since all students are users, and possibly future owners, of IP protected products. They usually are unaware of how frequently they infringe third party rights through plagiarism and pirating.

In careers such as engineering, where the need of this kind of programs is evident, the difficulties to develop an IP program are the greatest, because more emphasis is placed on technological areas, and very little time is left for the teaching of humanities and legal aspects.

These conditions are worst in non-industrialised countries, where the general culture ignores elementary concepts of IP. Therefore, the planning of information campaigns is needed.

The lack of textbooks, the cost of reference material, and the need of more specialists complete this scenario. Moreover, the emphasis on the learning of mathematical and technological skills results in poor language skills.

A feasible alternative is to include a law syllabus for engineers covering basic notions of Civil Law, Administrative Law, Labour Law, Ethics, History of Institutions, Technology and Society. Each of these topics, conceived as components of introductory courses, would introduce elements of IP to motivate students to give presentations on specific aspects of IP.

The use of the Internet is to be recommended because students can have access to a variety of updated pieces of information. Other materials that could be used are patent registrations and international conventions.

Business students should be able to work as advisers or managers of companies that usually trade in IP protected products. For this reason, students should be taught fundamental principles of IP and its operational aspects. In business studies there are courses that could easily include the elementary notions of IP necessary in a professional setting. The integration of these notions could be achieved in a short seminar, addressing the interpretation of international conventions and their application in the local environment.

In summary it can be said that in law schools, the analysis of different aspects of IP should be integrated in a single intellectual property course. Such a model could also be followed for engineering and business students, as long as the course relates to their everyday life and work. However, it is arguable that such a model is not ideal. Instead, a model involving informative and introductory sessions, incorporated in other courses, which stimulate students and make them aware of the most relevant aspects of IP for their professional performance could be recommended.

Question 8:

How many and which legal subjects should be presented
- *To business students?*
- *To engineering students?*

Business and engineering students primarily need to be taught about the practical aspects of intellectual property rights that are relevant to their everyday life and work. The fine legal detail is not required, but it is necessary to familiarise these students with the basic legal provisions in the area and they need to be familiar with the legal jargon. They have to be able to spot legal issues before they turn into real problems and they need to be able to decide when they should seek specialist legal advice. When they do seek or receive such advice they must be able to understand it and act upon it. This means that they must be able to communicate effectively with legal experts in this area.

As to the content of the courses there seems to be a consensus which Professor Verma expressed as follows:

"For business students—After giving an overview of the IP rights, emphasis should be laid on confidential information, trade secrets, public disclosure problems, procedural aspects of patents such as various types of patent searches, patent filing, etc., more on IP management, licensing of intellectual property and technology transfer, drafting and negotiation of transfer of technology agreements. In summary, emphasis should be more on IP management. For this purpose, some basic knowledge of IP law is necessary for the course.

For engineering students—Here also, emphasis should be more on the technical aspects of IP rights, for example on patents, industrial designs, integrated circuits, computer programs, and biotechnology. The students must be exposed to the legal and institutional aspects of these technical areas."

Question 9:

How many and which economic and technical subjects should be presented to law students?

It is important that law students are properly introduced to certain technical and scientific concepts. They need to understand how the legal and the scientific and technical approaches contribute to and work together in the area on intellectual property rights, and especially in relation to patents and utility models. This is to be followed by a more detailed examination of the way in which patent applications and claims are drafted.

Intellectual property rights are by their nature exclusive rights. This means that they necessarily interact or even conflict with the concept of free competition in the market. Law students should be introduced to the social and economic background to intellectual property rights and the economic justification for intellectual property rights. The economic importance and valuation of intellectual property rights should also be addressed.

The students should also learn to think interdisciplinary and to see the impact of law on technology and business. Students could in addition to that be trained how to use the IP laws strategically in order to gain benefits for their companies.

Finally, from a very practical point of view law students need to know

1) that searches in the patent office libraries, in various databases and on the Internet should precede all development and marketing efforts,

2) that searches also can be used to monitor the development trends in a particular field of technology or to find out which companies are already - or could develop into competitors, or could be potential licensees,

3) that IPR strategies are important and can aim at securing exclusive rights to new technology, but can also be used as a preventive measure to avoid conflicts and litigation, and

4) that strategies are also necessary in motivating employees and keeping them enthusiastic so as to provide impetus for the whole company.

The reason for this is that many law students end up as company lawyers or as managing directors.

Question 10:

Could you please submit sample IP curricula:
- *For law students,*
- *For business students; or*
- *For engineering students?*

Many colleagues helpfully send us their curricula. These can be found in the archives of the conference. We do not want to be prescriptive on this point and most of the curricula which we received could suitably cover the needs of colleagues that are planning to set up a new course. The differences between the various curricula are often due to differences in national legislation, the number of teaching hours available, etc. The following curricula should be seen as samples, rather than as ideal models.

For law students:

I. Introduction to intellectual property rights

- Concept, basic notions and definition of IP
- Evolution of IP and its economic importance

– Kinds of IP— industrial property: patents, utility models, industrial designs, trademarks and trade names, appellations of origin; copyright, neighbouring rights, and rights relating to folklore

– History and scope of the Convention Establishing WIPO.

II. Patents

– Rationale of the patent system

– Requirements for qualification as a patentable invention: novelty, inventiveness and industrial applicability

– Patentable subject-matter, exclusion from patentability (under TRIPS and national laws)—discoveries, mental acts, medical procedures or methods

– Procedure for obtaining valid patents—application, specification, claims and description

– Patentability of computer programs, living organisms, plant and animal varieties, biological processes and microorganisms

– Infringement, defences, counter-claiming; public ownership and enforcement of a patent

– Remedies

– Exclusive rights of the patentee; licensing of patent and allied rights

– Ownership and assignment; types of licences and restrictive clauses

– International arrangements: Paris Convention, PCT and important regional arrangements such as EPC and ARIPO, TRIPS Agreement

– Some idea about utility models and petty patents may also be given as an optional module

– Exhaustion of rights.

It is important to note that law students need a short introduction to certain technical and scientific concepts. This is to be followed by a more detailed examination of the way in which patent applications and claims are drafted.

III. Trademarks

– Kinds of marks: trademarks, service marks, collective marks, associated marks, certification marks, well-known marks, marks of distinction

– Trade names and appellations of origin

– Honest concurrent users, registered users

– Subject-matter of a mark—distinctiveness

– Procedure for obtaining trademark registration

– Protection requirements

– Scope and duration of protection

– Infringement—right to goodwill; passing-off, filching of trade secrets

– Remedies

– International arrangements: Paris Convention, Madrid Agreement concerning the International Registration of Marks; Nice Agreement; TRIPS Agreement

– Effects of new technology (Internet) on domain names as enforceable trade or service marks.

IV. Copyright and neighbouring rights

- Economic rationale of copyright protection
- Subject-matter enjoying copyright protection: literary, artistic, scientific works, works of applied art, computer software, drawings and descriptions of engineering and project designs, etc.
- Works excluded from protection
- Architectural works
- Authors'moral rights, economic rights and their limitations
- Pre-requisites of copyright protection
- Ownership and transfer (through contract, succession) proprietorship of copyright; assignment and licensing and other forms of exploitation
- Duration of right, renewal, terminations
- Infringement actions, fair use and affirmative defences
- Database protection
- Remedies, pre-emption
- Neighbouring rights: rights of performing artists, phonogram producers and broadcasting organisations
- Broadcasting rights including satellite and cable distribution
- Folklore and folk rights, miscellaneous rights
- International arrangements: Berne Convention, Universal Copyright Convention, Rome Convention, WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty, 1996; TRIPS provisions.

V. Industrial designs

- Subject-matter of protection; relationship with copyright protection
- Requirements to qualify as an industrial design, i.e., pattern, shape, ornamentation, article, appeal to eye, novelty, originality, intention to multiply industrially
- Aesthetic design and functional design
- Procedure for obtaining design protection and keeping its enforceability
- Procedure for registration
- Infringement and revocation
- Remedies
- International arrangements.

VI. Unfair competition, including trade secrets

This point will relate to the provisions of the law of the particular jurisdiction, as well as the provisions of the international treaties, viz. the Paris Convention and the TRIPS Agreement. National law on passing-off and comparative advertising to be taken into account.

VII. Enforcement of IP rights

- Under national laws
- Under international conventions: WTO rules- DSU, WIPO's Center for Arbitration and Mediation.

VIII. Special modules may be provided on layout designs (topographies) of integrated circuits, plant breeders' rights, impact of new technologies on IPRs, multimedia, right to privacy, character merchandising, etc.

At the postgraduate level, an in-depth study and comparative study of the IPRs can be undertaken.

For engineering students:

Engineering students require knowledge in more specific IP fields such as patents, designs, integrated circuits, computer programs, trademarks, etc. After giving an overview of various forms of IPRs, they should be exposed to the intellectual property rights that are related to creative activities, i.e., patents, designs, biotechnology, etc. They must be exposed to the legal and institutional aspects of these areas.

Of particular importance to them are the technical aspects of IP rights. Hence, the emphasis should be more on patents and utility models, industrial designs, integrated circuits, international telecommunications—its legal and industrial aspects, computer programs and biotechnology.

Particular emphasis should be placed on the interpretation of claims in assessing infringement and the procedure in obtaining patent protection. The procedure for obtaining patents, preparation of documentation, etc. should also be covered, as should be the law relating to trade secrets, the rights of "employed" inventors and academic inventors working under government or industrial grants.

In designs more emphasis should be placed on functional designs, integrated layout circuit designs, and procedures for obtaining such protection.

Finally, issues such as computer programs (as part of copyright protection) and the licensing and transfer of technology should also be included.

For business students:

In their case, emphasis should be placed on IP relating to business, i.e., on trademarks and goodwill, confidential information and trade secrets, unlawful competition and maintenance of competition, passing-off, public disclosure problems, Procedural aspects of patents such as various types of patent searches, patent filing etc. IP management drafting and negotiation of transfer of technology agreements, licensing of intellectual property and technology transfer, kinds of transfer of technology agreements, restrictive clauses is another area that could be covered.

Question 11:

Are technical facilities (computer equipment, Internet connections) available at your Institution to use distance learning methodologies such as Internet-based courses on specific IP subjects?

Technical facilities for distance learning are either available or envisaged in the developed jurisdictions, but no such facility is available, nor is it envisaged in the near future in the developing countries (particularly in countries such as India).

The WIPO Worldwide Academy could make an important contribution to the development in this area by providing Internet-based courses in those areas where local expertise is lacking and by providing access to Internet-based courses via regional centers.

Additional questions from Mr. Vladimir Yossifov (Head, Innovation Promotion Section, WIPO):

I. Discussions of the ascendancy of the "global marketplace" and the resulting necessary international IP protection and enforcement suggest professors or schools may be (or may have been) considering an intensified exposure to these subjects through increasing the percentage of time devoted to these issues.

If true, could professors suggest how levels may be varied (format and duration) based on the needs of different students' (law, engineering, business) tracks?

Discuss those cross-disciplinary issues that have been delineated as more useful for business or engineering students than those from law faculties.

II. Regarding the actual teaching undertaken by each participating professor, do the subjects discussed within Issue I receive sufficient promotion and coverage? In other words, which professors cover these subjects and with what priority?

How can new venues, such as this conference, aid IP professors around the world collaborate to address these needs?

The replies to these two questions made it clear that there is indeed a trend towards greater emphasis being placed on the international aspects of intellectual property and primarily on the trade-related aspects and the international exploitation of intellectual property rights.

In countries with a common law tradition these aspects are usually added at a stage where the national provisions have already been analysed. Often specialist postgraduate courses are offered in this area. Civil law orientated curricula rather take the international conventions as a starting point of their analysis. The international exploitation and trade-related issues come in such a system also towards the end though. In all systems these aspects are increasingly receiving attention.

There is however a need for accurate teaching materials on these issues. A business analysis based input is also required and such an input is not always readily available when lawyers are in charge of the course. This issue arises for example because law students need

to be introduced to the tax, business and competition-related aspects of this evolution towards global exploitation.

III. WIPO Worldwide Academy can develop, cooperatively with schools or directly for a variety of audiences, responsive and up-to-date training packages covering the international treaties in force, along with methods of protection and enforcement that serve to reinforce the subjects cited above (Issues I and II).

These materials could be either broad introductory sweeps across the fields of IP and relative treaties or particularly narrow examinations of any one treaty, or any set of the treaties (e.g., *Patents: Paris Convention, the PCT, TRIPS Agreement and the Strasbourg Agreement), as needs be.*

Would distance learning delivery techniques, such as Internet-based courses or teleconferencing systems allow: a) more versatility b) more accessibility, c) more salient coverage in delivering these subjects in the participants' schools?

It would be appreciated if WIPO could facilitate student access to the text of the relevant international treaties. The WIPO web site is a good starting point, but a version of the text with short explanatory comments per article would be of great value. Teleconferencing would be helpful if it could allow postgraduate research students to discuss various in-depth points with WIPO experts in a second stage of their studies. Distance learning packages may equally be helpful, but I envisage that their general nature may prevent them from replacing specialised postgraduate courses in the short term. They would however be helpful as tools for those students that need an introduction to intellectual property and for whom a residential course is not available or is not an option. In addition WIPO could provide funding for academic studies and research into the international intellectual property treaties and their operation to increase the material that is available for any student that wishes to pursue research in this area. Making studies that have been commissioned for other purposes by WIPO available over the Internet could represent a first step in this direction.

IV. Valuation of intellectual property, as a growing speciality in both law and corporate management, is empirically defined as a highly subjective topic. Do concrete or standardised methodologies for measurement exist? If companies assign different priority levels to this area based, perhaps, (and according to some casual studies) on the differing perceptions of IP's value to the corporation as a whole, is this something that Faculty in Business, Engineering and Law should be more concerned with in the future?

How can IP valuation be implemented and taught, and could WIPO, through the WW Academy, aid these efforts through distance learning modules?

Valuation of intellectual property is an important issue, but such valuation is not easy. Lawyers teaching intellectual property courses find it particularly difficult to include it in their courses. A full economic analysis is needed, but few teachers are fully qualified to deal with such an issue. It might be helpful if WIPO could provide teaching materials on this issue through the Academy's web pages.

V. The relationship between labour law and IP law when the IP rights of employees and employers are concerned is an issue of growing concern. Is this also, as was economic valuation, a subject that merits further development in Participants' curricula?

In other words, how much of a need exists, for teaching some basic level of IP in law programs concentrated on labour law issues?

Most intellectual property courses seem to include the issue of employee inventions and employee creations. From an intellectual property point of view there does not seem to be an immediate need to add anything else. It is not entirely clear what the situation is in programmes that approach the topic from a labour law point of view. Surely this issue should also be raised in such course, even if that is only done as an example or as a special case.

Note: This report has been drafted in collaboration with the following panellists: Prof. A. Christie, Prof. C. de Padilla, Prof. F. Magnin, Prof. S.K. Verma, Mr. B-G Wallin.