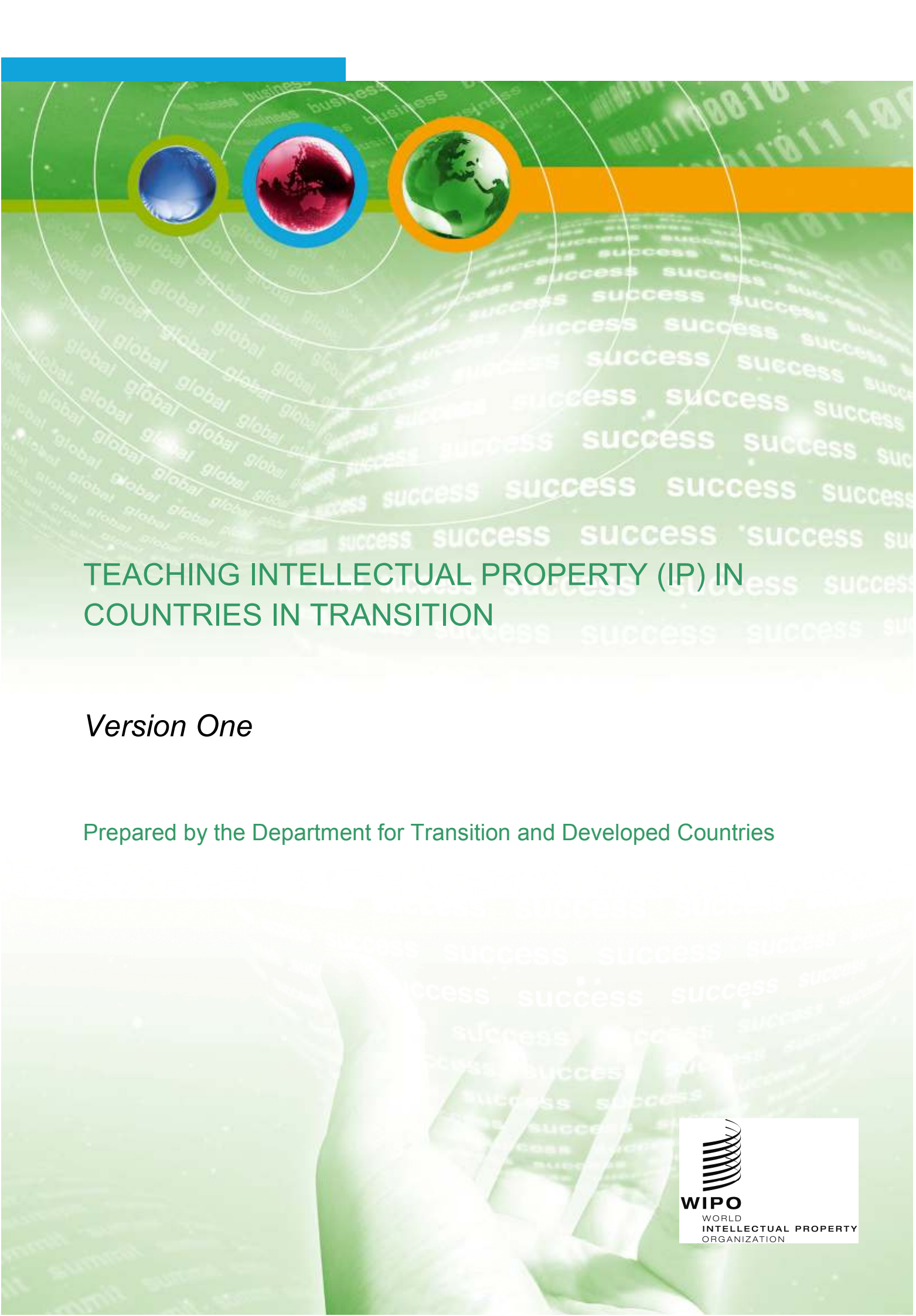
TEACHING INTELLECTUAL PROPERTY (IP) IN COUNTRIES IN TRANSITION

Version One

Prepared by the Department for Transition and Developed Countries



WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

TABLE OF CONTENTS

INTRODUCTION AND BACKGROUND

Teaching Intellectual Property is a very challenging task. It is nothing like teaching any other area of law. *First and foremost*, IP law covers many areas. Unlike Tort Law or Criminal Law, IP deals not only with Patents, Copyrights, Trademarks and Trade Secrets but also with Unfair Competition, Right of Publicity and more. Moreover, IP interacts with many other areas of law such as Antitrust, Torts, Property Law, and Contracts. Yet the legal aspects of IP are only one part of the story. To get a thorough understanding of IP, one should also have a good grasp of its economic rationales, political ideology and the prevailing theories that brought this area to life. Furthermore, theoretical knowledge alone is not enough in order to teach IP – practical skills are of an essence and teaching them is not an easy task. Thus, for example, drafting a patent is a very complicated and delicate matter, which requires a very unique set of skills. Passing it onto others requires different techniques and settings which bring the concept of apprenticeship to mind. If this is not enough, understanding some aspects of IP, mainly in the area of patents, requires prior technical background in engineering, biotechnology, computer science and so on. Therefore, in order to teach IP, an institution cannot usually count on just one or even two professors to cover the entire field. It requires different areas of knowledge and expertise, which in turn requires a handful of teachers of different orientations – academics and practitioners alike.

Second, IP law is a perpetually changing field. It is no secret that there is a strong tie between IP and technology. Not only does IP affect the creation of new technologies by providing incentives to research and manufacturing, it also adapts itself to new technologies and changes in order to accommodate them. Thus, new IP rights are created every so often and traditional rights are constantly being altered to keep up with the new technology. Technology pushes IP law to new frontiers, which in turn require the professors to keep up with the pace and expand their knowledge. This means not only acquiring theoretical knowledge but also preparing new class notes, new courses, adopting new teaching methods and so on.

Third, the IP law of the 21st century is significantly different than that of the 20th century, not to mention the 19th century. Starting as a local regime, via local monopolies provided by the government or the king, different countries had different IP laws that covered their territory. Those local laws had to be mastered by IP scholars and practitioners in order to teach and practice in the corresponding fields. Today, due to the growing process of globalization, the booming of internet use and extensive international trade, this is no longer the case. Every IP professional needs to know about the IP regimes in different countries, not to mention the international obligations and treaties adopted by his own government. This "must have" knowledge not only includes the international aspects of the law but also local aspects that nevertheless vary among countries. In addition, IP teachers need to be aware of the structure of multinational regimes and regional treaties such as the EU which adds another level of complexity, with its guidelines and directives. An excellent example of the complexity of modern-days IP law can be found in Trade Marks and especially well known marks, which are a cross-border phenomena that needs to be handled across different legal regimes. Similarly, patents must be filed in numerous countries in order to allow genuine protection and commerce. For this, IP professionals must learn how to protect patents not only in their own home-land but also abroad. Indeed, some aspects of IP law are similar across different countries while other aspects vary. The nuances are of great importance. Such is the case, for example, in software

patents or patents relating to processes of treatment of the human body. In different countries, different legal paths need to be pursued in order to maximize IP protection. Combine this with various types of trade issues, grey markets, globalization of media and the internet and you get a very complicated area of law. An IP practitioner must know, or at least be familiar with all these complexities, which in turn entrusts the academia with the great challenge of conveying this type of knowledge.

All of the above are general issues that any educational institution and law school in every country should tackle. And indeed, over the last decade, plentiful writing was devoted to the issue of teaching IP. Yet it seems that for several reasons, the above mentioned challenges are exacerbated in countries in transition (developing countries). *First*, there is the issue of language and accessibility to legal materials. Many countries in transition suffer from linguistic barriers. Without translations, both scholars and practitioners cannot access foreign and international materials which are available on the internet. Another obstacle is the lack of access to commercial legal resources and databases such as Lexis and Westlaw, as well as access to noncommercial resources such as SSRN, all of which make it easier for professionals to keep themselves updated and stay on the leading edge of legal and technological developments. These databases also help in researching and accessing the information needed in order to perform basic IP work, such as finding prior knowledge, novelty assessments etc. *Second*, due to the infancy of the IP markets in countries in transition, the number of law professors and trainers who can teach IP law is limited. The shortage in IP professors is aggravated by limited budgets. Oftentimes, the universities' budget in countries in transition is more restricted than the budget in fellow universities in developed countries. Therefore, they cannot afford hiring more than a very limited number of people devoted to teaching IP. To this, one can add the lack of public awareness of the need to train additional professors who can teach IP law. As a consequence, many institutions do not have a plurality of professors specifically dedicated to the field of IP law. When *one* professor is available, his expertise usually does not extend to all areas of IP law. Hence, a student who attends one of these universities and wishes to study the entire field is faced with a genuine problem.

Small markets and limited budgets also affect the quality and quantity of teaching materials and teaching aids. While in places such as the US, teaching IP is rather "easy" for there is a variety of a textbook for students and professors, in countries in transition this is not the case. These textbooks offer several benefits. They are constantly refreshed and updated. They also provide the professors with teaching materials and teaching aids, such as model questions and answers, excerpts from cases and articles, Power Point slides and so on.

In many countries in transition, course materials are often prepared by the professors themselves. This is a time consuming task, which requires significant effort not only in searching, choosing and editing the materials, but also in keeping them up-to-date. Oftentimes, the lack of expertise results in materials of an inferior quality. But being in charge of preparing the course materials has another drawback. While a general IP professor can rather easily pick one of many textbooks and manage teaching any one of the specific IP areas, this cannot happen in a system in which professors must establish an entire IP program from the start. One can easily understand the impact this has on the variety of IP courses offered to students.

The use of technology in IP teaching is of great importance. This field of law can be rather difficult to explain without study aids. Many of the policy decisions the professors talk about in class are of the "you know it when you see it" type. Thus, for example, the use of Power Point slides can provide great help in explaining the differences between ideas and expressions or in explaining why a certain use was ruled to be fair. The use of Power Point slides can also help to explain the different methods of constructing the claims' hierarchy in a patent or to explain the essence of the reverse doctrine of equivalence. Internet access in classes can also provide many opportunities to illustrate certain problems, to show short video clips etc. Some countries in transition have not yet succeeded in embedding this type of technology in classes. It is not that IP law cannot be taught without the aid of technology – there are excellent professors who can teach it without presenting a single slide– but it can make the life of the common professor much easier and the learning process more entertaining and productive.

Academic "isolation" from the general IP community in countries in transition is also a major obstacle to achieving quality IP education. Without getting into the reasons for this isolation, be it political, economic or linguistic, generally speaking, both scholars and students in countries in transition have less knowledge about the international aspects of IP law and about the new frontiers of technology. IP communities around the world provide each other with valuable resources and information about the law and its applications. Members of these communities also benefit from an ongoing analysis of important legal and economic aspects of IP. Conferences are one way for exchanging information. Attending these conferences provide scholars with valuable knowledge. Attending conferences can also establish relationships between scholars and institutions, leading to exchange of ideas and professors. But conferences are only part of the story. Scholars in developed countries are also members of mailing lists such as Cyberprofs and IPprofs. These lists provide valuable information regarding new developments, as well as an agora to share and test intriguing ideas, innovative legal analysis and so on. The exchange is not only of ideas. Using these lists, professors also exchange practical teaching materials, courses' syllabuses, study aids, etc. These networks also allow professors to share databases of vivid examples of various cases as well as illustrations of scenarios that address some of the interesting points being taught, both of which simplify the study process and clarify the material for the students.

These professors' networks are of great value in teaching IP law. Many universities use the visiting system in which professors occasionally relocate to teach in different institutions. These visits can be short, if the professor teaches a crash course on a certain topic, or long, where the professor spends a year or two in an institution, carrying a heavier teaching load. This allows the universities to offer their students a variety of courses, even if they are small-sized institutions, have a limited budget or lack major experts in IP law. Moreover, it is not only the professors who travel around. The students, via student exchange programs, can also visit different universities for one or two semesters. This allows the students to enrich their knowledge in institutions whose expertise and strengths extend to different fields in IP law. Some countries in transition are isolated from these networks, thereby limiting the possibilities for the students to acquire knowledge in different areas of IP and more importantly, thereby holding back the professors from learning new skills and new subjects in different institutions.

Teaching IP is not easy – not in developed countries and not in countries in transition. It combines theoretical ideas with practical knowledge. Some of these ideas are counter

intuitive and are not easy to grasp, while some of the practical aspects are overwhelmingly technical and not easy to learn. In this tool I will try to take a close look at some of the unique problems of IP teaching in countries in transition. I will try to offer some critical improvements to current IP education and also offer solutions that could bridge the gaps between countries, putting the countries in transition abreast with the rest of the world. This, of course, depends not only on the goodwill of the professors but also on the national understating of the importance of IP as a growing part of the economy, and the importance of allocating resources for these reforms, on the part of governments and private organizations.

GOALS AND OBJECTIVES

Identifying Different Types of Training

Every construction of an IP program must start with the identification of its target audience. The training process of IP law can take many shapes and forms. As the IP sphere contains many legal aspects, managed by various legal and paralegal professionals, there is a crucial need to identify which of these groups is the target audience of such training programs and to address their specific requirements. This chapter will classify these different groups and their respective needs, while discussing the importance and relevance of IP training to each of the identified target audiences.

Training for Law Students

First Degree in Law

Since a first degree in law must provide a broad coverage of numerous subjects of law, as well as a basic training, the opportunity for first degree students to take IP law courses is rather limited. Within this framework, IP courses usually take the form of elective courses or seminars. Students who are interested in IP law are thus given the chance to get acquainted with some of the basics of IP law. Since the number of such students is rather large and can reach several hundreds of people, their access to IP education strongly depends on the number of IP professors and the number and variety of IP courses at the university. Given the fact that elective courses, not to mention seminars, are more restricted in the number of students who are allowed to enroll, having several courses running in parallel, and in different semesters, is of the essence for basic training. An alternative is to make the basic IP course (IP survey for example) obligatory, for instance, for all second year students. This, however, runs against the current specialization trend in most law schools in developed countries, which calls to abolish mandatory courses in favor of elective courses.

Advanced Degree in Law

Advanced degree studies typically tend to take the form of programs that focus on certain fields of law or revolve around substantive themes of study,[1] such as "International Business and Commercial Law", "Public International Law", "International Arbitration", "Criminal Justice" and, of course, our topic of interest: "Intellectual Property Law".

[1] A search engine for LL.M. programs worldwide is available at http://www.llm-guide.com/.

Graduate students in IP law are usually one of two kinds: either ones who have recently completed their first degree in law and are looking to master the field of IP in order to position themselves for careers in IP (in legal practice or in the academia) or ones who are already engaged in legal practice, and wish to switch to the field of IP law or to deepen their knowledge in IP.[2] This group usually contains a small number of carefully selected students, highly talented, with a proven record of excellence in their first degree curriculum or an outstanding reputation in their former practice.

As other scholars have noted, the past decade has experienced a rapid growth in the number of graduate-level IP programs offered in academic institutions.[3] This has been fueled by the industry's growing demand for IP professionals. For instance, the Center for International Intellectual Property Studies (CEIPI), an institute of the University of Strasbourg, offers 5 tracks of LL.M. studies in IP, 4 of which are industry-oriented (rather than research-oriented).[4]

Notice, however, that LL.M. students place a heavy burden on the academic institution, in terms of the variety of courses and the budget. Since this group is rather small and requires small classes with specific training (which translates to require many courses, some esoteric, on specific subject matters), many universities will not be able to offer these programs, for lack of IP professors, lack of resources, or both. At the same time, universities with a strong IP background will create programs that are addressed to prospective students from different regions and sometimes different states, all in order to make these programs more professional yet affordable.

Training for Law Practitioners – Lawyers and Patent Agents (Patent Attorneys)
Lawyers

Obviously, lawyers are professionals who are already certified to practice law. But many practicing lawyers may still seek to enhance their knowledge and skills in IP law. They may be motivated to do so for various reasons.

First, lawyers practicing in a field of law other than IP, will occasionally face cases pertaining to IP law. For instance, lawyers practicing commercial law will encounter issues of IP law in varying frequency and intensity. Similarly, commercial lawyers may frequently be required to assess the legal and economic ramifications of an IP asset involved in a business transaction.

Second, a lawyer practicing in a legal field other than IP may wish to shift his practice to IP law.[5] This shift may be prompted by the growing demand for IP lawyers, as economies become more and more knowledge-oriented and service-oriented. An IP lawyer may find himself involved in IP litigation, IP prosecution or even in strategic IP planning (i.e. choosing the "right" trade mark; choosing the right scope for a patent protection;

---

[2] Robert W. Gomulkiewicz, *Advanced Intellectual Property Law Programs: From the Big Bang to the Carnegie Report*, 10-13 (unpublished, *available at*: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1648990)

[3] *Id. at 5.*

[4] *See* http://www.ceipi.edu/index.php?id=5442&L=2

[5] Sean M. O'Connor, *Teaching IP from an Entrepreneurial Counseling and Transactional Perspective*, 52 ST. LOUIS L.J. 877, 882 (2008) (explaining that the University of Washington School of Law's IP program attracts many mid-career attorneys who wish to transition to an IP practice).

determining the number of countries in which to apply for a patent etc. An IP lawyer may also be required to advise his clients on whether to keep the invention a trade secret or apply for a patent, thus revealing the knowhow).

Third, a lawyer already engaged in practicing IP law may wish to enhance her knowledge in IP in order to keep abreast with contemporary developments in the field or sharpen her practicing skills.[6] As mentioned earlier, IP law is an ever-evolving area. It is highly demanding and time consuming to follow the major global shifts and changes in IP. A "crash course" now and then or a series of focused lectures can provide even the specialist with valuable information and legal updates, without the need to conduct a thorough research by himself.

Fourth, in some jurisdictions Continuing Legal Education (CLE) for lawyers is a requirement mandated by the regulating authority for lawyers (the bar association). This is the case, for example, in most states in the US, where one aspect of the Mandatory Continuing Legal Education (MCLE) is to participate in trainings on professional ethics and another is to attend legal courses in topics of the lawyers' own choice.[7]

Patent Agents (Patent Attorneys)

The profession of a patent agent (dubbed a "patent attorney" in some jurisdictions) typically centers on representing clients vis-à-vis a national (*or international*) patent office (e.g. USPTO, German Patent and Trademark Office, European Patent Office, etc.). Often, a patent agent will also co-manage a patent infringement lawsuit, together with a certified lawyer, and the two will jointly represent a litigant in court.[8]

In virtually all jurisdictions, a person must be certified in order to serve as a patent agent. This process usually concludes with a certifying examination.

The prerequisites for certification typically include a deep technical background in some field of science and technology coupled with specific legal training in the field of patents. The legal training is further subdivided to training courses on the one hand, and "on the job" training on the other hand. This framework is mandated in Australia,[9] Germany,[10] Singapore,[11] and in many other countries.

Some jurisdictions, such as Canada, do not formally require training courses.[12] However, given the notorious difficulty of the exam,[13] it is in the trainees' best interest to participate

---

[6] Heinz Goddar, *Teaching IP Practical Skills for Practitioners and Attorneys* in TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS 212, 226-227 (Yo Takagi et al. eds. 2008).

[7] Lisa A. Grigg, *The Mandatory Continuing Legal Education (MCLE) Debate: Is it Improving Lawyer Competence or Just Busy Work?*, 12 BYU J. PUB. L. 417, 418-422 (1998).

[8] *See* Goddar, *supra* note 7, at 217-218.

[9] *See* http://www.psb.gov.au/patreg.htm

[10] *See* Goddar, *supra* note 7, at 213-214.

[11] *See* http://www.ipos.gov.sg/leftNav/pat/age/REQUIREMENTS+FOR+BECOMING+A+REGISTERED+PATENT+AGENT.htm

[12] Rule 13 of the Canadian Patent Rules (*see* http://laws-lois.justice.gc.ca/eng/regulations/SOR-96-423/page-6.html#h-6)

in training courses that will enhance their achievements in the mandated exam, even if not obliged to do so.[14] This observation is also true with regard to the European Patent Office.[15]

The importance of adequate training is thus evident. All countries underscore the importance of the proficiency of their patent agents. Countries meticulously regulate the profession by mandating certification exams. It naturally follows that adequate preparation for the exams necessitates adequate training, which at least in part should take the form of academic-oriented training courses.

Training for Judges

Judges, as such, can also be trained. There are two types of juridical models adopted in different countries. General judges, that handle various areas of law such as Civil and Criminal Law, and specialized judges who preside in a more restricted field and deal with specific issues like Family Law or Labor Law. Sometimes both models can be adopted in the same county for different areas of law or in different instances.

Specialized judges deal with a high volume of cases in their specific areas. As a consequence they are more familiar with the technicalities of a given subject of law. A good example is the Court of Appeals for the Federal Circuit (CAFC), that handles most of the patent appeals in the US. Those judges usually need less training, especially when they are nominated from within a legal community that specializes in those fields, such as experienced IP lawyers or distinguished law professors. Sometimes, however, newcomers are nominated not from within this community and therefore they should be trained to master the respective field. Usually, this process occurs in an informal manner, with the help of the nominees' colleagues, but it can also take place in a more formal manner as will be explained below. Moreover, even a community of well-trained judges can benefit from specific workshops regarding a new technology or new developments in law. These workshops can either be organized by the state or by judges with the help of the academia and other nonprofit organizations. These workshops may involve lectures by scholars both from within the country and from abroad.

These workshops become much more important under the model of the General Judge. As IP law is a rather complicated area involving many technicalities, basic information is needed in order to adjudicate many of the cases. This basic knowledge can be acquired on an ad-hoc basis (i.e. the litigants will provide the judge with the required knowledge and literature – a model which is prone to be less objective due to the involvement of the parties), or through a series of workshops that would expand the judges' legal education in this respect. Such workshops are especially important in countries where oftentimes the nominated judges have not taken a single course in IP law. The workshops can be

---

[13] In 2009, only 12% of applicants passed the exam in Canada (*see* http://www.cipo.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/wr02423.html#graph4).

[14] In Canada, The Intellectual Property Institute of Canada (IPIC) offers a weeklong course on patent practice in conjunction with McGill University, which prepares patent trainees for the certification exam. See http://www.ipic.ca/english/general/2011patc.cfm and http://www.ipic.ca/english/general/2010patcM2.cfm

[15] *See* Goddar, *supra* note 7, at *214-215*(noting that the Center for International Industrial Property Studies (CEIPI) in Strasbourg offers training sessions for those engaged in EPO certification, which prepare for the remarkably difficult EPO written exams).

held once a year or once in several years, and can provide the judges with the basic understanding required for handling an IP case.

Training for Non-Jurists

IP education may be as important to *business managers*, *engineers* and *scientists*, as it is to jurists. Here, training is rather tricky. On the one hand, training must carry a different form and use different tools, for the target audience are laypersons. On the other hand, the training must still retain the spirit of IP principals intact. In this category of non- jurists the purpose of teaching IP is double folded – *first*, it should give them the tools to know when to apply for IP protection and how to manage the creative process without ruling out such protection (for example, by publishing an article before the submission of a patent application). *Second*, it ought to provide them with the ability to know when they may use others' materials and when they may not. For example, a businessman should know that it is allowed to use someone else's ideas even if they are protected by copyright law, as long as they were obtained in a legal manner, while it is forbidden to use an idea protected by a patent, regardless of how it was obtained. Another example is the scientist, who should know what use is considered to be fair when referring to copyrighted material in his classes or quoting paragraphs from his colleagues' articles, without risking being accused of copyright infringement.

Kathleen Kaplan and John Kaplan are a patent agent and a patent attorney, holding doctorate degrees in computer science and electrical engineering (respectively). They actively endorse educating engineering students on the basics of IP and assert that "[i]f taught early, starting in the freshman year, and often, throughout their undergraduate education, IP awareness will be ingrained into the students' creative thought process".[16] We agree that *engineers* and *scientists* should be knowledgeable of the basics of IP law, in order for them to better protect their creations. For Gordon Gould, the inventor of the laser, the ignorance of the fundamentals of IP law had almost resulted in his loss of rights to his invention.[17] Had he been better aware of the basic requirements of securing rights to a patent in the first place, he could have avoided the years of costly litigation that followed.

But even as a practical matter, knowing IP is not only important to individuals invested in a creative process. Oftentimes IP is the most important asset of a company and managers should know, or at least have basic intuition, how to handle it. Given the economic and competitive values attributable to intellectual property assets, IP has become a core issue in the *management of businesses and entrepreneurships*, even more so as economic growth is more than ever dependent on knowledge-based and service-based industries. As noted by the European Commission, the protection and management of intellectual property assets is important to the competitiveness of organizations and to their attractiveness in the eyes of investors.[18] The EU found that the

---

[16] Kathleen M. Kaplan & John J. Kaplan, *Incorporating Intellectual Property into Engineering Education*, Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition – Session 2793, 9 (2003), *See* http://ipmall.info/hosted_resources/Teaching_IP/Kathleen_Kaplan_2003.pdf.

[17] Monisha Deka, *Pre-professional Intellectual Property Education*, 46 IDEA 143, 147 (2005).

[18] Investing in research: an action plan for Europe, COM(2003) 226, at 21. available at: http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=COMfinal&an_doc=2003&nu_doc=226.

lack of awareness regarding the protection and management of intellectual property has contributed to the unsatisfying rate of growth in private investment.[19] This is why the EU advocated that "every student in science, engineering and business should receive at least a basic training on intellectual property…"[20]

IP education in business schools is becoming more abundant. It is a natural evolution that stems from the same rationales that prompted the instruction of the basics of contract law and corporate law in business schools.[21]

Educating the General Public

The general public's lack of sound knowledge on the basics of IP law is an undisputed fact. This has been even acknowledged in developed countries. A good example is the US Congress, as it left the courts with the discretion (under certain conditions)[22] to reduce the statutory damages awarded to plaintiffs, where defendants establish an innocent unawareness that their act (e.g. peer-to-peer downloading) constituted an illegal infringement of copyright.[23]

But this lack of sound knowledge is only one part of the problem. The other part which is of greater concern is the social norms regarding breach of IP rights. Among those who know the law, many would consider the infringement of IP rights as a minor mischief, not to be regretted. This is especially true in some specific industries and with regard to copyright law. Within many communities, the prevailing notions are that the publishers, film producers and record companies as well as some megastars, earn significantly above and beyond of what is "right" or above what they "deserve". This colors the entire industry in black. People in these communities often feel that because those stakeholders earn so much, the public need not contribute to their earnings. People feel that losing some revenues, will not affect these stakeholders too harshly.

But why is this cause for concern? Indeed, passing knowledge to the public is not an easy task. We must think of unique ways to address the public. However, changing the prevailing norms is much more complicated than just passing knowledge. It takes time and must be conducted carefully in order to prevent an adverse effect. These groups of the public should be addressed via diverse channels and should be taught, not only what the law is but also the basic ideas behind IP protection: why it is "right" and why it should be upheld. Without a deeper conviction that the rationales of IP law are just, it will be very difficult to change the prevailing norm. Enforcement is one thing. Changing the norm is another.

At first glance, educating the general public about IP may seem unbeneficial or unworthy in terms of cost-effectiveness. However, as several scholars point out, educating youth

---

[19] *See Id*. at 3.
[20] *See Id*. at 4.
[21] Susanna H. S. Leong, *Teaching Intellectual Property in Business School*, in TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS 185, 185 (Yo Takagi et al. eds. 2008).
[22] *See*, for instance: Maverick Recording Co. v. Harper, 598 F.3d 193 (5th Cir. 2010).
[23] 17 U.S.C. § 504(c)(2).

about IP is fruitful in two aspects.[24] *First*, it facilitates the efforts to downsize the IP piracy phenomenon, by educating the youth to respect others' creations. *Second*, it fosters the pursuit of creativity in the next generation, by emphasizing the social and economic value of a creative mind.[25]

Countries such as the Unites Kingdom and Japan, have undertaken initiatives to educate primary and secondary school students on selected aspects of IP.[26] In Germany, a few introductory lessons to IP are given in high-schools, by guest speakers who are professionals in IP law. However, this was not done as a result of a federal directive or program, but rather as a private initiative by individual teachers.[27]

Defining the Different Objectives of Training at Various Levels

In the previous chapter, we identified different audiences for IP training. Each type of audience has its own unique characteristics and objectives, to which training should be tailored. This subchapter explores the goals and objectives to be achieved in the training of each type of audience.

Objectives of Training Law Students

The first objective of teaching IP to law students is to impart the knowledge of the substantive intellectual property law, currently in effect. But this is only the tip of the iceberg. Students must also be infused with the skill of applying and construing the law to different factual situations. In this regard, students should be proficient in analyzing the merits of a given case and in identifying the relevant IP issues, both in favor of the plaintiff and in favor of the defendant. On the more theoretical level, students should be able to engage in a critical discourse on the policy factors that affect the relevant field of IP law.
As studies progress and move away from introductory levels, students should be increasingly exposed to international aspects of IP law.[28] In addition, IP education to law students cannot overlook the necessity of simulated practice. Such simulation may take the form of a mock-trial in IP infringement, drafting realistic patent applications or even administering legal counsel regarding IP law to real clients, as done in legal clinics.[29] Given the dynamic nature of this subject matter, students must also be instructed on how to utilize research tools that will enable them, at any given time in the future, to autonomously carry out a research in the field of IP law.

---

[24] Larry Allman, Mpazi Sinjela & Yo Takagi, *Recent Trends and Challenges in Teaching Intellectual Property, in* TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS 1, 9 (Yo Takagi et al. eds. 2008).

[25] Compare: Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU* 106 HARV. L. REV. 977 (1992-1993).

[26] Ruth Soetendorp*, Intellectual Property Education - in the Law School and Beyond*, I.P.Q. 2005, 1, 82, 87-88 (2005).

[27] *See* Goddar*, supra* note 7, at 224-225.

[28] Peter K. Yu, *Teaching International Intellectual Property Law*, 52 ST. LOUIS L.J. 923 (2008).

[29] Christine Haight Farley et al., *Clinical Legal Education and the Public Interest in Intellectual Property Law*, 52 ST. LOUIS L.J. 735, 735 (2008) ("Clinical legal education provides a powerful methodology for students to learn about the relationships among intellectual property law theories, policies and practices; to encounter the experiences of persons who seek protection or who feel the legal regimes of intellectual property impinging on their ability to engage in educational, creative, innovative, and culturally significant work; and to develop as a lawyer").

Objectives of Training Law Practitioners – Lawyers and Patent Agents
Training Non-IP Lawyers

Since Non-IP lawyers will occasionally encounter cases that involve intellectual property, they must have a basic overview of the entire breadth of IP law. More specifically,[30] the most important skills a non IP lawyer should have with respect to IP law, are (1) the ability to identify the existence of an IP-related matter in the case at hand, (2) the ability to make an initial assessment of the risks and opportunities involved with the relevant IP assets (3) the ability to determine if and when it is necessary to approach a lawyer who is an expert in IP law. These skills are crucial for two reasons. *First*, it is quite common for a non IP lawyer to serve as a legal "first-responder" to her clients. This is true, for example, in the case of an in-house counsel employed by commercial companies and media corporations (news channels, newspapers and advertising firms). Such companies and firms are often faced with IP-related issues, which may be, for instance, a lawsuit or a business transaction with IP aspects. *Second*, many lawyers specializing in other fields of law, such as commercial transactions, mergers or anti-trust law, may easily find themselves facing a case that, either significantly or marginally, involves IP law. For instance, a transnational commercial contract regarding the development of a new technology must address IP issues arising from it, alongside traditional matters of financing, remedies for breach of contract, conflict of laws, arbitration etc. Moreover, even in transactions that are not focused on IP, the allocation of the accompanying IP rights nonetheless impacts the value of the transaction.

Training IP Lawyers

IP lawyers must possess a profoundly greater knowledge of IP law, than non-IP lawyers. The objectives identified above as per non-IP lawyers, are only the baseline for the training of lawyers with an expertise in IP law.

The top objective of training for an IP lawyer is to improve his ability to deliver professional legal counsel in at least one field of IP law (patents, trademarks, copyrights, industrial designs and trade secrets).
Specifically, training of IP lawyers must impart the following skills (but note that an IP lawyer may specialize and focus on just one or only some of these aspects):

(1) *Strategic counseling on IP*.

a. Strategizing protection of IP assets – An IP lawyer must be able to counsel his client on which type of IP protection is advantageous, considering the specific circumstances, the constraints and the alternatives available. Beyond identifying the preferred type of protection, an IP lawyer must also be able to analyze the various alternatives and approaches available within that type of IP protection, (e.g. local patent prosecution vs. multinational prosecution; choosing a fanciful trademark vs. suggestive trademark etc.).
b. Strategizing the use of others' IP assets - This includes legal risk-management in the utilizing of others' IP assets (e.g. analyzing the implications of using an open-source software module within a software application developed for retail sale[31]; consulting advertisers on how significantly they may borrow from others in their campaign; drafting a

[30] Michael McCue, *Practice Pitfalls: What Every Attorney Should Know About Intellectual Property Law*, 11 NEV. LAW. 13 (2003).
[31] Jacobsen v. Katzer, 535 F.3d 1373 (Fed. Cir. 2008).

clearance opinion that allows for the "infringing" of a patent thereby estimating it would not survive the validity test upon careful scrutiny of the courts). This category also includes analyzing the legal aspects in the procurement of others' IP assets (e.g. during a "due diligence" prior to a merger).

(2) *Drafting and negotiating contracts* for IP-oriented business transactions. These may be, for instance, copyright licensing contracts for software ("click-wrap" or "shrink wrap" licenses), patent licensing as well as "classic" cases such as addressing IP issues in a contract that establishes a joint business venture between two companies.

(3) *Prosecution, registration and filing know-how*. These are the practicalities of obtaining IP protection and they include, for instance, the knowledge and skills of drafting patent claims, the procedures for filing and processing patent applications, the procedures of registering a new trademark or industrial design, etc. Third party oppositions may be filed during the course of IP prosecution, most notably in trademarks,[32] but sometimes also in patents.[33] Therefore, prosecution know-how must also extend to the handling and settling of such oppositions.

(4) *Litigation know-how*. When it comes to the rules of evidence or to civil procedure, IP infringement lawsuits have their own unique particulars. For instance, the Anton Piller order, granting the right to enter premises in order to search and seize evidence for a civil litigant, was first applied by Lord Denning in a case involving an IP dispute.[34] Another example is a unique rule of circumstantial evidence that shifts the burden of proof in copyright infringement lawsuits. Case law or statutory law may prescribe a presumption of infringement, if the allegedly infringing piece of work is substantially similar to the copyrighted one, and it is proven that the defendant had prior access to the copyrighted material.[35] Another distinctive tool, used mainly in trademarks, is the survey. Consumer surveys allow the plaintiff to establish likelihood of confusion. Lawyers, however, should know when and how to use this tool, due to the fact that it is a double edged sword and sometimes, if not conducted properly, the survey's results may be held against the plaintiff.

A special emphasis must be given to the international aspects of IP law. In today's global markets, very few matters in IP law are truly isolated from foreign influences and effects. In nearly all cases multinational interaction must be taken into account.[36] This is particularly obvious in patent law and trademark law, which have inherent cross-border aspects to them. But even if the case at hand is seemingly unrelated to any foreign factor, the globalized nature of IP law calls for a comparative-law approach in the analysis and handling of IP cases. Developed countries (most notably the US, UK and many of the EU countries) have generated a remarkable amount of qualitative jurisprudence on IP law. Consulting such developed jurisprudence is as beneficial as getting advice from an experienced professional. It may shed light on the advantages and disadvantages of

---

[32] *See*, for instance, European Council Regulation No. 207/2009 on the Community trade mark, art. 8, which provides that "Upon opposition by the proprietor of an earlier trade mark, the trade mark applied for shall not be registered…"; *See* also Europe's Office for Harmonization in the Internal Market (Trade Marks and Designs), at http://oami.europa.eu/ows/rw/pages/CTM/regProcess/opposition.en.do

[33] Hans-Peter Brack, *Utility Models and Their Comparison with Patents and Implications for the US Intellectual Property System*, 2009 B.C. INTELL. PROP. & TECH. F. 102701, 10 (2010).

[34] Anton Piller KG v. Manufacturing Processes Ltd, [1976] Ch. 55 (U.K.).

[35] Steinberg v. Columbia Pictures Industries, Inc., 663 F. Supp. 706, 711 (S.D.N.Y. 1987).

[36] GRAEME B. DINWOODIE ET AL., INTERNATIONAL INTELLECTUAL PROPERTY LAW AND POLICY, preface at v (2001).

adopting a certain legal solution to a problem.[37] It is therefore simply unacceptable for an IP lawyer to lack the knowledge and skills required to address the international aspects of an IP case.

Continuing Legal Education for Lawyers

As one scholar noted, "[t]he legal profession is a challenging and dynamic world where new statutes and interpretations continually arise. Thus, to be competent, an attorney must continue to adapt and learn".[38] Given the rapidly and perpetually evolving nature of IP law, Continuing Legal Education (CLE) of IP law, is indispensible to lawyers who specialize in IP. The top objective of CLE is to keep the practitioner's knowledge up-to-date with respect to current developments in the field. Such developments may be in case law, in decisions of administrative agencies that process the registration of IP assets, developments in prosecution procedures (including new approaches and methodologies for drafting IP-related legal documents) and developments in comparative IP law.

Training Patent Agents (Patent Attorneys)

The top objective of training patent agents is to impart "the necessary qualifications to render to [patent] applicants valuable service, advice, and assistance in the presentation or prosecution of their applications or other business before the [patent administration agency]".[39]

First and foremost, patent agents must be familiar with the basics of patent law: patentability, inventorship, infringements and claim construction.

But beyond these basics, the major objectives of training for patent agents are to infuse the trainee with the skills for (1) prudent claim drafting, construction and interpretation; (2) successful prosecution (including responses to office actions and oppositions); (3) mitigation of pitfalls (such as anticipatory references, obviousness (inventive-step) issues, and compliance with mandatory disclosure rules); and (4) interaction with client and professional ethics.

Patent agents are certified on a territorial basis. However, a patent agent must be familiar with the general international rules of patent protection, in order to accommodate to his client's cross-border interests (adapting the local drafting and prosecution to a multinational strategy, referring the client to the appropriate foreign-jurisdiction professional, etc.).

Given the highly technical subject matter in patents, many countries require that patent agents have, in one form or another, sufficient technical background in at least one field of science or technology.[40] This prerequisite usually mandates that the patent agent hold an academic degree in at least one scientific or technological discipline, namely physics,

---

[37] AHARON BARAK, THE JUDGE IN A DEMOCRACY 198 (2006).

[38] Lisa A. Grigg, *The Mandatory Continuing Legal Education (MCLE) Debate: Is it Improving Lawyer Competence or Just Busy Work*?, 12 BYU J. PUB. L. 417, 423 (1998).

[39] 35 U.S.C. § 2(b)(2)(D).

[40] Dale L. Carlson, Robert A. Migliorini & Carolyn J. Vacchiano, *Re-Thinking Patent Bar Admission: Which Bag of Tools Rules?*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 113, 116-119, 127- 130 (2005).

chemistry, biology, biotechnology, electronics, engineering or computer science. The advantages of such a prerequisite become obvious when considering the role of a patent agent, as a critical intermediary link between the highly technical (or scientific) nature of an invention and the legal niche (and art) of patent drafting and prosecution. Thus, the purpose of the requirement for scientific or technological knowledge and skills is to ascertain that the patent agent indeed has the necessary background in any patentable subject matter. And since the borders of patentable subject matter are continuously changing, a frequent re-consideration of required technical or scientific background is necessary.[41]

Objectives of Training Judges

By-and-large, few judges have comprehensive knowledge and experience regarding intellectual property law. For many, this part of the law seems hard to grasp, given its scientific and technological propensity. It would not be an exaggeration to say that some judges feel as though they are traversing through uncharted territory when confronted with the complex and rapidly changing field of IP law.[42]

Judges have an obligation of fidelity to the law. Therefore, training must not tutor them how to rule on cases. Instead, training should focus on offering the tools that may aid them in approaching IP cases brought before them for adjudication. The training can only offer suggestions because ultimately, the adoption of various tools remains solely within the judge's discretion.

More specifically, the objectives of judges' training are to (1) familiarize them with commonly used practices in each of the various rubrics of IP law; (2) to offer suggestions on mitigating some of the procedural and case-management problems unique to this area of law (e.g. patent claim construction);[43] (3) to discuss unique policy issues that shape this area of law; (4) to introduce contemporary trends and international aspects that dominate this field; (5) to expose judges to the current discourse in academic IP law research.

Objectives of Training Non-Jurists

Engineers and Scientists

Paraphrasing the US Constitution, in order to be able to "promote the Progress of Science and useful Arts"[44], the authors and inventors of scientific discoveries and "useful Arts" (namely, scientists and engineers), must have fundamental knowledge of the basics of IP law. Thus, the objectives of IP training for engineers and scientists are to familiarize them with the basic concepts of IP, so that when they engage in any creative undertaking, they will be aware of the interplay between their creative work and the IP system.

---

[41] *Id*. at 136-137.

[42] Graeme B. Dinwoodie, *Crossing Boundaries: Developing a Private International Intellectual Property Law: The Demise of Territoriality,* 51 WM AND MARY L. REV. 711*,* 790-791 (2009).

[43] For specific examples, see the online library of the US Federal Judicial Center's (education agency for the US federal courts), Intellectual Property section, athttp://www.fjc.gov/library/fjc_catalog.nsf.

[44] US CONST. art. I, § 8.

When it comes to an engineer or a scientist, the objective of IP training is to bestow *a general awareness* of (1) what IP is, (2) how to utilize it beneficially (3) the hazards of infringing other people's IP assets and (4) the importance of seeking timely professional legal counsel.[45]

The President of Munich's Institute for Economic Research, Karl Heinrich Oppenlander, rightfully noted that engineers need not become IP experts of themselves, but they should know where to find patent information and identify when it is time for them to consult with an IP expert or adviser.[46]

During their course of employment in today's hi-tech industry, technology professionals will likely be faced with some legal issues in IP law. A good example is Non Disclosure Agreements (NDAs), which many engineers and scientists in the high-tech industry are required to sign. Technology professionals should be instructed on the extent of the obligations they undertake by signing such NDAs, namely, what they may and may not do with the information disclosed to them. Another example is the assignment of IP assets from the employees who authored or invented them, to the employer, who wishes to acquire ownership or usage rights in those assets. Each jurisdiction has its own rules prescribing who, by default, owns the rights to such assets depending, among other things, on whether they were authored or invented during the course of employment. Different legal arrangements may apply to freelancers. A scientist should also be aware of the tension between her "genetic" urge to publish innovative findings and thus promote her professional esteem, and the detrimental effect an untimely publication may have on the patentability of her invention.[47]

All in all, engineers and scientists should be instructed on the basics of these topics, which are profoundly relevant to their careers.

Business Managers and Entrepreneurs

As mentioned before, intellectual property has become a valuable asset to businesses, both financially and competition-wise. Teaching IP to business managers and entrepreneurs must aim to meet several objectives. The first goal is to impart basic knowledge on the different types of intellectual property: the different rubrics in IP, the sort of assets that are best protected by each rubric, their relative advantages and disadvantages etc. They should also possess a general knowledge regarding the process of obtaining each type of protection (required time, associated costs and obtaining timely legal counsel). A core aspect in any business undertaking is risk management. It is therefore imperative that business managers be trained to identify where the risk of infringement of other people's IP assets lies and what must be done to minimize such risks.

Given the financial value of IP assets, business training cannot be considered complete without inculcating in students the role IP assets play in strategic business planning. This is exemplified in Sun Microsystem's side-deal in the acquisition of Netscape by America

[45] Ruth Soetendorp, *Teaching Intellectual Property to Non-Law Students*, in TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS 230, 254-255 (Yo Takagi et al. eds. 2008).
[46] *See* Soetendorp, *supra note 27, at 86* .
[47] See, for instance, 35 U.S.C. §102(b).

Online. Sun was chiefly motivated by Netscape's IP, because Sun was able to acquire several missing pieces of technology and know-how necessary for its long-term development plan, thus saving considerable time and money in the alternative of internally developing the missing pieces.[48]

One entrepreneur has stated that during his previous career as a patent attorney, he had "come to appreciate the rich mother lode of [competitive] intelligence that a company could glean about its competitors' strategies from publicly available patent filings".[49] This is why we recommend that advanced business courses also train students how to utilize the IP domain in order to acquire information on competitors.

Objectives of Educating the General Public

Unlike what some anti-piracy groups might endorse, educating the general public about IP need not focus solely on reprimanding acts of IP infringement. Explaining how the public benefits from the IP system in general, and educating the general public about the value of obtaining protection for their own creations, is equally important.[50] Moreover, the public should also be aware that the law prescribes "fair" uses of IP assets, which do not constitute infringement, and do not expose the "fair" user to criminal culpability or civil liability. Of course, the extent of the "fair use" doctrine varies across countries, but nonetheless, it is a widespread doctrine. Obviously, IP education to the general public need not be comprehensive. Rather, it should convey selected key points, as noted above. It should also be succinct, openly accessible and easy to understand.

Setting Standards and Defining Measurements for Success in IP Training

Establishing an operative framework for IP training in countries in transition is a complicated task. There is no one cookbook that fits all. Each country has its own unique set of constraints and considerations that it must take into account. Nonetheless, any erected framework must undergo constant and frequent re-evaluation, in a continuous effort of development, improvement and fine-tuning. This effort should be guided, at least in part, by feedback mechanisms that will aid in assessing the adequacy of the established framework. This sub-chapter will discuss possible indicators of success in IP training that will serve to provide the framers with the necessary feedback for continuous improvement and adaptation of the established framework.

Exams

Exams are the most common method for measuring the success of students and trainees. Beyond their measurement of students' achievements, exam results are also an indicator on how well the training process achieves its purpose of imparting the relevant knowledge and skills to students. In other words, since the exam's purpose is to ascertain the students' proficiency, it also serves to indicate how well the teaching process itself lived up to its purpose in inculcating that proficiency.

---

[48] KEVIN G. RIVETTE & DAVID KLINE, REMBRANDTS IN THE ATTIC: UNLOCKING THE HIDDEN VALUE OF PATENTS 4-5 (2000).

[49] *Id.* preface at x.

[50] *See* Deka, *supra* note 18, at 155-156.

Exams may take several forms. Final exams are the common form of testing conducted at the conclusion of the training session or semester. They facilitate improvement by iterations – each course or training helps to draw conclusions for improvements in the subsequent course.

Contrarily, midterm exams are especially helpful in obtaining a midway feedback, so that conclusions may be drawn for immediate implementation of improvements, while the course or training is still underway.

Certification exams are those conducted in order to determine whether a candidate is qualified to practice the relevant profession. They are the gates to entering the profession and as such, serve to filter out ill-prepared candidates. For instance, a training course for patent agents can be measured for its success by analyzing the rate and distribution of attendees who passed the patent office's certification exam.

Certified Seal of Approval

Some jurisdictions offer a certification program for lawyers specializing in Intellectual Property law. One example is Florida, where in order to be recognized as a specialty lawyer in IP law, candidates must be peer reviewed for their professional competence in IP law and must pass a written exam dedicated to the field of IP law.[51]
A certification exam may thus be used as a standardized measurement of success of the training in IP law.

The idea of certification on the national level, can be taken a step further and applied to the international level. International bodies can provide a certified seal of approval for national experts that comply with certain professional standards. These standards could be measured by passing a set of exams, an international workshop or any other certification process. So if, for example, an international company would like to apply for a patent or a trade mark in a given country it can look for those internationally approved and certified lawyers. Thus, the company can trust that its international interests are in the good hands of a certified expert.

Surveys

Surveys are an important feedback tool. They may shed light on elements in training that are in need of modification. They provide program framers with different points of view that they may not otherwise be aware of. Surveys can target a variety of audience, thus creating a broad base of opinions from instructors, students, and from the employers that ultimately hired the trainees. These opinions can help in assessing satisfaction or dissatisfaction in respect to key points such as teaching practices (clarity and comprehensibility), course materials, instructors' teaching abilities, correlation between the training and the skills required in practice, and so on.

[51] *See* http://www.floridabar.org/DIVCOM/PI/CertSect.nsf/9736b6935363096385256fd4005e5cea/79e88f175562f769852571d30050c699!OpenDocument

Malpractice Lawsuits as a Proxy for Good Training

Malpractice lawsuits in IP cases are becoming a growing concern for practitioners and insurers. Given the lost profits approach to quantifying damages, IP malpractice claims can easily become multi-million Dollar suits.[52]
Indeed, some malpractice lawsuits are motivated by dishonest or unworthy clients, where the practitioner duly exercised prudence and competence.[53] Nonetheless, an indicator of the success of a comprehensive framework of Intellectual Property training, is its ability, in the long-run, to curtail the growing trend of IP malpractice claims.
Understandably, within the context of IP malpractice lawsuits, IP training cannot mitigate client-wrongdoings. But it certainly can and should aim to elevate the proficiency, competence and ethics of the IP practitioners. One of the expected effects of higher proficiency and competence of practitioners is the downsizing in IP malpractice claims.

MAPPING EXISTING PRACTICES IN IP TRAINING

Introduction

The stabilization of economic processes and providing of stable economic development represent key tools for an escape from the world crisis for countries with transition economy (countries in transition). Intellectual property (IP) becomes one of the important factors in providing innovative and universal growth for economies of these countries.

A necessary element for formation of the intellectual property system is a premise that the general public will understand all the benefits of using IP machinery at the initial stage. The majority of the countries with transition economy have dealt until now with a lot of problems in connection with intellectual property. One of the most important problems is a lack of knowledge and understanding of an intellectual property concept, including its exploitation by the general public and private sectors of the economy, as well as the IP management in the state sector.

It is obvious that an important part of the creation and development of the intellectual property system in countries with transition economy is the dissemination of knowledge about this system, and about its impact on trade, industry, economic, social and cultural development. *For this purpose it is necessary to conduct a WIPO scientific research considering the tailoring of tools for intellectual property teaching in countries with transition economy (hereafter referred to as Research).*

The result of this Research must consist in providing effective education in the IP area at the relevant levels. One can expect that the results of this Research will promote further formation of institutional practice in various state bodies and will make an important contribution to long-term, stable economic growth and development of countries with transition economy.

Teaching in the field of intellectual property has an important value for the creation of a legal infrastructure, necessary to stimulate the development of innovative branches. The objective of this Research is to reveal special needs of countries with transition economy

[52] Mary Beth S. Robinson, *Legal Malpractice in the Intellectual Property Practice*, 710 PLI/PAT 485 (2002).
[53] *Id*. at 491-492.

relating to education in the IP area, for the purpose of defining various objectives and tasks for training of specialists in this area, as well as to assist the tailoring of curriculums (teaching schedules) and innovative teaching techniques on the subject of intellectual property in countries with transition economy.

The teaching must be in compliance with modern development factors: the importance of innovative economies, regional economic cooperation, increasing the number of intellectual property academies and educational centers. The countries with transition economy are in need of modernization of the existing educational system in the field of intellectual property. The training of teachers in this field is a first step in that direction.

Therefore the purpose of this Research is the study and comparison of existing practical cases in the field of IP teaching in countries with transition economy and the preparation of a final document relating to the creation of a tool for IP teaching in countries with transition economy. All that notwithstanding, attention must be focused on the fact that a number of countries already do have experience with the tailoring of special teaching programs in the field of intellectual property for state office employees, which could be used in choosing the best practice and elaboration of necessary recommendations

The results of this Research will have the objective of laying down the foundations and to strengthen the potential of all countries in transition in the field of intellectual property, and to be in compliance with strategic WIPO documents; they will also support the build-up of the innovative potential of these countries and more effective dialog between government bodies and private sectors of the economy on the subject of defense, protection, management and exploitation of IP.

For the purpose of successful realization of such actions, the representatives of the state bodies (state office employees) as well as entrepreneurs; researchers and various experts, must have the necessary knowledge in the field of intellectual property. It is obvious that this knowledge must be a supplement of full value to the knowledge they must possess in accordance with established procedures for effective execution of their official duties. And this precondition must certainly be taken into account in the tailoring of teaching programs and the implementation of the teaching.

The analysis carried out shows the availability of many teaching courses in the field of intellectual property established by patent offices in countries in transition, educational institutions and international organizations. The World Academy of the World Intellectual Property Organization is the central entity for the arrangement of teaching and for the teaching itself in the field of intellectual property and offers a number of basic and advanced courses for long-distance teaching. The Academy programs meet the needs of various audiences – inventors and creative persons, company managers and IP specialists, politicians and state office employees busy with IP matters, diplomatic staff and representatives of various countries and organizations, students learning IP, IP teachers and the whole of society. The teaching of interested persons is carried out in the field of industrial property and copyright or related rights. The Academy takes the steps to choose a relevant form of teaching which corresponds to the needs of a relevant agency in the best way. The WIPO programs are based on the studies of demand and are directed to support information exchange between various groups, including copyright holders (possessors of rights), and the heads and employees of law enforcement agencies. The target groups are state office employees of agencies for industrial property

and copyright as well as other ministries/departments dealing with matters of intellectual property[54]. Thus, the WIPO Academy has created and implements various courses for distance teaching/learning in different languages.

In order to provide stable innovative economic growth in countries in transition, based on profiting from intellectual property, they need the teaching programs tailored in accordance with the specified requirements of the patent and trade mark experts, employees of law enforcement agencies, state office employees, entrepreneurs and other interested parties, who are busy with the matters of intellectual property. Thus, the teachers in the field of intellectual property in countries with transition economies are the respondents for the conducting of this Research.

The results of comparative analysis of existing practices for intellectual property teaching in countries in transition

The following factors have been taken into account by conducting a comparative analysis of existing practices for intellectual property teaching in countries with transition economy:

(1) state agencies dealing with the matters of intellectual property;
(2) availability in a particular country of a state management system for intellectual property;
(3) availability in a particular country of teaching programs on the subject of intellectual property;
(4) availability in a particular country of educational institutions specializing in the field of intellectual property;
(5) general education of state office employees and their instruction on the subject of intellectual property;
(6) state bodies where employees are taught under the programs in the field of intellectual property;
(7) period when teaching programs for state office employees in the field of intellectual property are implemented in a particular country;
(8) teaching programs for state office employees in the field of intellectual property (main directions, frequency, duration);
(9) providing the state office employees with teaching aids on the subject of intellectual property;
(10) forms of supporting resources received from other countries or organizations relating to intellectual property teaching;
(10) arrangement of practical training and role-playing / simulation games for teaching of state office employees;
(11) information to be included in the teaching program for state office employees;
(12) combination of teaching and practical activities in the field of intellectual property;
(13) availability of tailored teaching methods on the subject "Valuation of Intellectual Property" (the main directions of the teaching program).

The comparative analysis was based on the replies to the Questionnaire "Intellectual Property Teaching" from countries with transition economy.

[54] WIPO website - www.**wipo**.int/

State bodies dealing with intellectual property issues

No. In succession	Country	Name of the body (bodies)
1.	*Bulgaria*	The Bulgarian Patent Office
2.	*Czech Republic*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
3.	*Hungary*	The Hungarian Intellectual Property Office (deals with all aspects of IP protection including industrial property and copyrights)
4.	*Georgia*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
5.	*Latvia*	The Latvian Patent Office (deals with patents, trademarks and industrial designs (nominally also with semiconductor topographies))
6.	*Lithuania*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
7.	*Montenegro*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
8.	*Romania*	State Office for Inventions and Trade Marks, Romanian Office for Copyright
9.	*Russian Federation*	The Ministry of Education and Science, Federal Service for Intellectual Property
10.	*Slovakia*	Industrial Property Office of the Slovak Republic (Industrial Property Rights), Ministry of Culture of the Slovak Republic (Copyright)
11.	*Tajikistan*	The National Center for Patents and Information (Patent Office), Department for Copyright and Related Rights of the Ministry of Culture
12.	*Turkey*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
13.	*Uzbekistan*	Available ***(in accordance with the replies to the Questionnaire, but the name of the state body was not specified)***
14.	*Kazakhstan*	Patent office – Committee on Intellectual Property Rights of the Ministry of Justice of the Republic of Kazakhstan
15.	*Malta*	Available (in accordance with the replies to the Questionnaire, but the name of the state body was not specified)

16.	*Moldova*	The State Agency on Intellectual Property of the Republic of Moldova
17.	*Poland*	Available (in accordance with the replies to the Questionnaire, but the name of the state body was not specified)
18.	*Ukraine*	Available (in accordance with the replies to the Questionnaire, but the name of the state body was not specified))

In each country the number of bodies dealing with the matters of intellectual property issues is different. Nevertheless the competence of the bodies, which are forming such systems, also covers the field of legal defense as well as the field of exploitation and protection of rights for intellectual property objects.

State system of intellectual property management (its tasks and levels)

Bulgaria – a state system of intellectual property management does not exist there. *(*There is no state policy for intellectual property protection, commercialization and information support). The system of intellectual property management is the responsibility of business. The system of intellectual property management operates on a corporate level and on the level of an individual company.

Czech Republic - a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property and informational support in the field of intellectual property. The system of intellectual property management operates on the national level.

Hungary - a state system of intellectual property management does exist there. Its tasks are legal protection of intellectual property, commercialization of intellectual property and informational support in the field of intellectual property. The system operates on the national and corporate levels as well as on the level of an individual company.

Georgia - a state system of intellectual property management does exist there. Its tasks are legal protection of intellectual property and informational support in the field of intellectual property. The system operates on the national level.

Latvia – not available.

Lithuania - a state system of intellectual property management does exist there. Its task is legal protection of intellectual property. The system operates on the national level.

Montenegro - a state system of intellectual property management does exist there. The system operates on the national level.

Romania - a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property and informational support in the field of intellectual property. The system of intellectual property management operates **on the national level and on the level of separate companies** (*the replies of the Romanian representatives to this question in the Questionnaire are different*).

Russian Federation – the state system of intellectual property management on the national level is manifested there in a form of legal, informational and infrastructural support. Generally, intellectual property management is implemented there on the regional and corporative levels as well as on the level of a separate enterprise where the regulatory acts are issued.

Slovakia - a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property, commercialization of intellectual

property and informational support in the field of intellectual property. The system of intellectual property management operates on the national level.

Tajikistan – a state system of intellectual property management does not exist there. The emerging state system of intellectual property management on the national level is manifested there in a form of legal support (legal protection of intellectual property).

Turkey - a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property, commercialization of intellectual property and informational support in the field of intellectual property. The system operates on the national level.

Uzbekistan - a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property and informational support in the field of intellectual property. The system of intellectual property management operates on the national level.

Ukraine – a negative response was given in the questionnaire, but according to internet sources one can claim that Ukraine actively develops the intellectual property system. Its main tasks are legal protection of intellectual property and information support in the field of intellectual property.

Kazakhstan – a state system of intellectual property management does exist there. The system operates on the national level.

Malta – a state system of intellectual property management does exist there. Its main tasks are legal protection of intellectual property and information support in the field of intellectual property.

Moldova – a state system of intellectual property management does not exist there.

Poland – a state system of intellectual property management does exist there. The system operates on the national level.

State systems of intellectual property management do exist in these countries. But the tasks, which are to be solved with their help, are very different, because in some countries these systems were created on a state level and in others only on the corporate level and on the level of individual companies. The main task (or one of the important tasks) of the state system of intellectual property management is generally legislative regulation of relations connected with intellectual property. Along with legislative regulation, the state also provides, in many countries, informational support in the field of intellectual property.

Availability in a particular country of teaching programs on the subject of intellectual property

No. **in succession**	***Country***	***General teaching program on the subject of IP approved by a state body***	***Specialized teaching program on the subject of IP***
1.	*Bulgaria*	Not available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of Intellectual Property*

			• *Tailored for different (specialized) audiences* *Once a year in the Bulgarian Patent Office – training program only for representatives of industrial property protection*
2.	*Czech Republic*	Available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences*
3.	*Hungary*	Available *HIPO have an accredited training program with three levels (elementary, intermediate and advanced), but there is no unified single registration for IP courses, only a general accreditation requirement that is a requirement for all accredited courses in Hungary.*	Available at HIPO, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences*
4.	*Georgia*	Not available	Available, direction of specialization: • *Tailored for different (specialized) audiences*
5.	*Latvia*	Not available	Not available
6.	*Lithuania*	Available/Not available (there are different replies in the Questionnaires)	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences*
7.	*Montenegro*	Available	Not available
8.	*Romania*	Available/Not available (there are different replies in the Questionnaires)	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property*

			• *Tailored for different (specialized) audiences*
9.	*Russian Federation*	Not available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences* • Others- *in addition to Item 1 - Program on the Legal Protection of IP in general, programs for the legal protection of IP through the objects, programs on the Legal Defense of IP rights, programs for the commercialization of IP, IP management program.*
10.	*Slovakia*	Available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences*
11.	*Tajikistan*	Available *(the training programs are approved by the Ministry of Education)*	Available, direction of specialization: • *Tailored for different (specialized) audiences*
12.	*Turkey*	Available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property* • *Tailored for different (specialized) audiences*
13.	*Uzbekistan*	Available	Available, direction of specialization: • *Concerned with individual aspects of legal protection and exploitation of intellectual Property*
14.	*Kazakhstan*	Available	Available, direction of specialization: • They are concerned with

			individual aspects of legal protection and exploitation of intellectual Property • They are tailored for different (specialized) audiences
15.	*Malta*	Not available	Not available
16.	*Moldova*	Available	Available, direction of specialization: • They are concerned with individual aspects of legal protection and exploitation of intellectual Property, Intellectual property law, including: - rights in industrial property, - copyright and related rights, Patents: - protection afforded by patents - information and patent documents Plant varieties, Trademarks, Geographical indications, designations of origin and traditional specialities guaranteed, Industrial design, Intellectual property economy and evaluation.
17.	*Poland*	Available	Available, direction of specialization: • They are concerned with individual aspects of legal protection and exploitation of intellectual Property • They are tailored for different (specialized) audiences
18.	*Ukraine*	Available	Available, direction of specialization: • They are concerned with individual aspects of legal protection and exploitation of intellectual Property • They are tailored for different (specialized) audiences

The comparative analysis executed in a frame of the Project shows (and this is obvious from examining the data indicated above), that almost all countries, except Latvia and Montenegro, are implementing the teaching of specialized programs on the subject of intellectual property. The main characteristics of these programs are the following:

- *They are concerned with individual aspects of legal protection and exploitation of intellectual Property;*
- *They are tailored for different (specialized) audiences.*

In Russia, in addition to the indicated directions, the following programs are also carried out: Program on the Legal Protection of IP in general, programs for the legal protection of IP through the objects, programs on the Legal Defense of IP rights, programs for the commercialization of IP, IP management program.
But not all countries have the IP teaching programs approved by a state body.

Availability of educational institutions in a particular country, specializing in the field of intellectual property

No. in succession	Country	Name of educational institutions
1.	*Bulgaria*	•University - *The University of National and World Economy.* •*Training center under the state body, the competence of which includes the issues of legal protection of Intellectual Property* •*Training centre under the Patent Office*
2.	*Czech Republic*	• *University - Metropolitan University, Prague* • *Industrial Property Training Institute as part of the IPO CZ*
3.	*Hungary*	•University •*Training centre under the state body, the competence of which includes the issues of legal protection of Intellectual Property* •*Training centre under the Patent Office* *(*The scope of competence of HIPO established by respective legislation includes IP teaching, and universities with legal faculties also teach IP. However, there is no institute in Hungary with exclusive competence or rights for IP teaching.)
4.	*Georgia*	• University ***(the name of the educational establishment was not specified in the Questionnaire)***
5.	*Latvia*	Not available *(in accordance with the replies to the Questionnaire)*
6.	*Lithuania*	Not available *(in accordance with the replies to the Questionnaire)*
7.	*Montenegro*	• University ***(the name of the educational establishment was not specified in the Questionnaire)***
8.	*Romania*	•*Training centre under the state body, the competence of which includes the issue of legal protection of Intellectual Property* •*Independent Training Centre*
9.	*Russian Federation*	• *The Academy of Intellectual Property in the Patent Office system*

10.	*Slovakia*	• *Training centre under the Patent Office*
11.	*Tajikistan*	• *Training centre under the Patent Office*
12.	*Turkey*	• University *(some graduate/post graduate programs linked to Universities (e.g. Ankara University, Center on Intellectual and Industrial Rights))*
13.	*Uzbekistan*	• *Training centre under the state body, the competence of which includes the issues of legal protection of Intellectual Property* • *Training centre under the Patent Office*
14.	*Kazakhstan*	• *Training centre under the Patent Office*
15.	*Malta*	• *Not available (in accordance with the replies to the Questionnaire)*
16.	*Moldova*	*There are two universities specializing in IP management: Academy of Economic Studies of Moldova and State Institute of International Relations of Moldova. 10 universities (public and private) have introduced different courses on IP issues in the university.*
17.	*Poland*	• *University (the name of the educational establishment was not specified in the Questionnaire)*
18.	*Ukraine*	• *University (the name of the educational establishment was not specified in the Questionnaire)*

The analysis of the questionnaire forms received shows that different countries consider the matter of organizing of intellectual property teaching from different angles. In some countries the patent offices dealing with intellectual property do include in their structures teaching departments. These are – teaching centers, sections, institutes and even academies. In other countries the bodies dealing with any issues of intellectual property teach their state office employees on their own.

Certain countries still do not have any specialized organizations or universities with special programs on the subject of intellectual property, including for state office employees.

Availability in a particular country of general teaching of state office employees and their teaching on the subject of intellectual property

***No.* in succession**	***Country***	***General teaching***	***Teaching on the IP subject***	***Bodies teaching on the IP subject***
1.	*Bulgaria*	Yes (*only the state employees in National Patent Office*) / No (there are different replies in the Questionnaires)	Yes / No (there are different replies in the Questionnaires)	• *Specialized university* • *Specialized training centre* • *The state body in which the officials work* • *Other*

2.	*Czech Republic*	Yes	Yes (*besides Ministry staff, mainly Police and Customs officers*)	(the names of the establishments are not indicated in the Questionnaire)
3.	*Hungary*	Yes	Yes	• *Specialized training centre*
4.	*Georgia*	Yes	Yes	*National Intellectual Property Center of Georgia*
5.	*Latvia*	No	No	*Patent Office trains newcomers*
6.	*Lithuania*	Yes	Yes	• *The state body in which the officials work*
7.	*Montenegro*	No	Yes	• *Specialized university* • *The state body in which the officials work*
8.	*Romania*	No/Yes (there are different replies in the Questionnaires)	No/Yes (there are different replies in the Questionnaires)	• *Specialized training center, the state body in which the officials work*
9.	*Russian Federation*	Yes	Yes	• *Specialized university* • *The state body in which the officials work* • *Other - other universities; Institute for Advanced Studies of government officials*
10.	*Slovakia*	Yes	Yes	• *The state body in which the officials work*
11.	*Tajikistan*	No	No	-
12.	*Turkey*	Yes	Yes	• *Specialized university* • *The state body in which the officials work*
13.	*Uzbekistan*	Yes	Yes	• *Specialized training centre*

14.	*Kazakhstan*	Yes	Yes	• *Specialized training centre*
15.	*Malta*	Yes	Yes	• *The Industrial Property Office within the Commerce Department.*
16.	*Moldova*	Yes	Yes	• *The state body in which the officials work (for ex. Customs Service)*
17.	*Poland*	No	No	-
18.	*Ukraine*	Yes	Yes	• *Specialized university*

Along with general teaching/training of state office employees, almost all countries analyzed do have their teaching on the subject of intellectual property (except Latvia where the teaching is carried out only for newcomers in the Patent Office, and Tajikistan, Poland). The teaching on the subject of intellectual property is carried out mainly by the state body in which the officials work. Along with it, in such countries as Hungary, Georgia, Montenegro, Russia, Turkey, Uzbekistan, Kazakhstan, Moldova and Ukraine the teaching on these subjects is also carried out by specialized institutes (universities) and teaching/training centers.

The information provided in the Questionnaires for Bulgaria and Rumania is ambiguous.

State bodies where the office employees are taught according to intellectual property programs

***No.* in succession**	***Country***	***State bodies***
1.	*Bulgaria*	*Officials of the National Patent Office*
2.	*Czech Republic*	*Teaching available* ***(the names of the state bodies are not specified in the Questionnaire)***
3.	*Hungary*	*Customs, police, HIPO internal*
4.	*Georgia*	*Ministry of Internal Affairs, Justice, Prosecutors, Judges, Revenue Service, customs*
5.	*Latvia*	*Teaching available* ***(the names of the state bodies are not specified in the Questionnaire)***
6.	*Lithuania*	Not available *(in accordance with the replies to the Questionnaire)*
7.	*Montenegro*	Not available *(in accordance with the replies to the Questionnaire)*
8.	*Romania*	*State Office for Inventions and Trade Marks (OSIM)* *European Patent Office (EPO)*
9.	*Russian Federation*	*Patent Office,* *Federal Customs Service,*

		Ministry of Interior, *Ministry of Defense,* *etc.*
10.	*Slovakia*	*Industrial Property Office of the Slovak Republic,* *Ministry of Economy*
11.	*Tajikistan*	Not available *(in accordance with the replies to the Questionnaire)*
12.	*Turkey*	*Ministry of Agriculture,* *Ministry of Justice,* *Competition Authority,* *Ministry of Culture and Tourism,* *Ministry of Education* *etc.*
13.	*Uzbekistan*	*Teaching available* ***(the names of the state bodies are not specified in the Questionnaire)***
14.	*Kazakhstan*	*Teaching available at the training facility affiliated with the Patent office, state agencies, customs agencies, public prosecution offices, police*
15.	*Poland*	*Not available*
16.	*Moldova*	*Teaching available (the names of the state bodies are not specified in the Questionnaire)*
17.	*Malta*	*Teaching available (the names of the state bodies are not specified in the Questionnaire)*
18.	*Ukraine*	*Teaching available (the names of the state bodies are not specified in the Questionnaire)*

Unfortunately not all of the state office employees in the countries analyzed are covered by teaching programs in the field of intellectual property. In our opinion, the lack of teaching of state office employees under these programs would not allow them to coordinate effectively their activities concerning the defense, protection and exploitation of intellectual property, which in general could have an adverse impact on the innovative development of these countries.

Period in which the teaching programs of state office employees in the field of intellectual property have been carried in each particular country

Bulgaria

- More than 5 years

Czech Republic

- Mainly since 2000, but certain programs and seminars were introduced only a few years ago.

Hungary

- About 5 years

Georgia

- Less than three years

Latvia

- Information is not available

Lithuania

- Information is not available

Montenegro

- Less than three years

Romania

- Less than three years

Russian Federation

- More than 5 years

Slovakia

- More than 5 years

Tajikistan

- Information is not available

Turkey

- More than 5 years

Uzbekistan

- More than 5 years

Kazakhstan

- Less than 3 years

Moldova

- More than 5 years

Malta

- Less than 3 years

Poland

- Information is not available

Ukraine

- Less than 5 years

In a majority of the countries with transition economy (countries in transition) the period in which the teaching programs of state office employees are realized is rather short. Nevertheless there is no doubt that there are countries where such teaching has existed for a long time. In Russia for example this period already makes 40 years.

Teaching programs of state office employees in the field of intellectual property (main directions, frequency and duration)

No. **in succession**	***Country***	***Main program directions***	***Preferable duration***	***Preferable frequency***	***Frequency of professional trainings***
1.	*Bulgaria*	- (see Note 1)	*- 1 to 2 months* *- 1 week* *- 1 or 2 days* (different replies in three Questionnaires)	*Every year*	*-Every year* *- Every three years* (different replies in three Questionnaires)
2.	*Czech Republic*	• *Current problems of industrial property*	*2 or 3 days*	*Every 3 or 4 years*	*2 intensive 14-day courses organized in 2004 and 2007, since then shorter*

		legislation. • *Best methods and best practices* • *Appeals and disputes*			*specialized courses have been organized Every year*
3.	*Hungary*	• *Level: advanced / intermediate / elementary + seminars* • *Content : audience-specific and topical*	*1 to 2 months: depending on the position of the government official and level of involvement in IP, it can be from 1month to 1.5 years*	*Every three years*	*There is no obligatory regular training in IP for government officials*
4.	*Georgia*	*Our programs are tailor-made based on the request. Most courses include an overview of all IPR matters, and a more in-depth, specialized teaching on the subject based on the interest of the agency (e.g. IPR enforcement at the border).*	*1 week, 1 or 2 days*	*Every year*	*Every three years*
5.	*Latvia*	-	*1 or 2 days*	*Every year*	-
6.	*Lithuania*	-	*1 or 2 days*	*Every year*	*Every three years*
7.	*Montenegro*	*Interpretation of legal regulations, focusing on the importance of their proper and effective implementation in practice*	*1 to 2 months*	*Every year*	*Every three years*

8.	*Romania*	- (see Note 2)	- *1 to 2 months* - *1 week* - *1 or 2 days* (different replies in Questionnaires)	- *Every year* - *Every three years* (different replies in Questionnaires)	- *Every year* - *Every three years* - *Every five years* (different replies in Questionnaires)
9.	*Russian Federation*	• *egal protection of IP* • *egal defense of IP* • *anagement of IP* • *ommercialization of IP*	*1 week*	*Every five years*	*Every five years*
10.	*Slovakia*	*Subjects of Intellectual Property, possibility of their protection under the laws and International Treaties and practical training (search, acting before the Office…)*	*1 or 2 days*	*Every year*	*Every year*
11.	*Tajikistan*	-	-	-	-
12.	*Turkey*	*Target-specific, so that at the end they can make use of the knowledge gained*	*1 week*	*Every year*	*Every year*
13.	*Uzbekistan*	*General information on objects of IP and legal protection*	*1 to 2 months*	*Every year*	*Every three years*

14.	*Kazakhstan*	• *Notion and meaning of intellectual property law;* • *Objects and subjects of intellectual property law;* • *Subject of the exclusive right on the every object of IP;* • *Legal framework of the use of IP rights;* • *Responsibility for the infringement of IP rights;* • *Work of the state agencies against IP rights infringement*	*1 week*	*once in three years*	-
15.	*Moldova*	*Check Appendix Annex Q. 28 IP teaching program for civil servants includes overview of industrial property and copyright protection – according to national and international aspects, and enforcement of intellectual property rights based on reviewing the concrete*	*1 week*	*every year*	*every three years*

		examples			
16.	*Malta*	*- Overview of IP* *- International and regional aspects of IP* *- National scenarios of IP* *- More detailed information on national legislation in the field of IP and procedures which are required and can be applied.*	*1 or 2 days*	*every year*	*on an irregular basis*
17.	*Poland*	*-*	*-*	*every 5 years*	*(there is no definite answer)*
18.	*Ukraine*	*Concern separate aspects of legal protection and use of IP, in particular:* • *Intellectual property law* • *Economics of IP* • *Management of IP*	*1 or 2 days*	*every year*	*every year*

Note 1. In one of three Questionnaires received from the Bulgarian representatives, the main directions of training on the subject of intellectual property are described in the *Training Program "Legal Protection of Invention":*

1. Patents for inventions as a form of industrial property and their significance for the development of technological and economic progress and for doing business, with many examples.
2. After that was shown in a couple of slides the development of a patent system from the beginning, with the ancient Greeks and their patents on recipes for delicious meals, the first account of a formal patent law introduced by the Senate of Venice, dating back to

1474 AD, the Statute of Monopolies established in 1624 by the English Parliament, until the present day. Thereby some examples were given regarding the first English patent issued in 1617, the patents of James Watt's steam engine and the development of the world's patent applications as a whole and in a some leading countries.

3. The legal rights conferred by patents and their limitations, such as using the invention for non-commercial and experimental purposes etc.
4. Some examples were shown concerning the question "What does a patent look like?" namely concerning bibliographical information, descriptions, abstracts, drawings and claims to the invention and all the requisites given in a European patent document, including a real example concerning the structure of the description.
5. What can be patented at the European Patent Office and at the Bulgarian Patent Office? To answer this question the conditions were given for the patentability of the invention – novelty, inventive step and industrial applicability.
6. "Where can we apply for a patent?" was the next question whose answer was also given by the presentation. Several possibilities were shown when filing a national patent in the country of residence and/or any other country; filing a patent application at the EPO; filing an international patent application through the PCT. For all of these options were given their advantages, drawbacks and implications with regard to cost and time frame including the patent procedure at the EPO and the PCT procedure.

Note 2. From the side of Romania five representatives have sent their replies for analysis. The main directions of teaching programs for state office employees in the field of intellectual property have been represented rather ambiguously. Certain questionnaire replies show that teaching programs for state office employees in the IP field are not available there. Some others indicate that in such programs the analysis of basic information on IP, legal matters and IP rights protection is presented.

Providing of officials teaching with teaching aids on the subject of intellectual property

Bulgaria

- As a rule the Patent Office provides its audience with teaching aids tailored by the WIPO.
- Sofia University does not provide its audience with any teaching aids*.*

Czech Republic

- Provides its audience with some teaching aids (detailed information about this is not available)*.*

Georgia

- Provides its audience with research data on the subject of intellectual property.

Hungary

- There exists the tailoring practice of distributing teaching aids, slides and books (for the elementary level it is already ready, and for the intermediate level it is to be completed by October 2011).

Lithuania

- Information is not available.

Latvia

- The audience is provided with presentation papers and booklets if available.

Montenegro

- There exists the practice of distribution of booklets containing legislative regulation norms, selection of thematic research publications, etc.

Slovakia

- The audience is provided with legal documents, materials of presentations tailored by training managers, special literature and magazines.

Tajikistan

- Information is not available.

Romania

- Craiova University provides audiences with teaching aids and their electronic versions.
- North University of Baia provides the audience with legislative acts.
- Oradea University provides audience with teaching aids, which help with the drawing up of patent applications.

Russian Federation

- The Academy of Intellectual Property provides the teaching process with teaching aids and special educational supplies, including: (1) recommendations for enhancing the efficiency of the protection of intellectual property rights by Customs bodies; (2) methodological recommendations for application of the Fourth part of the Civil Code of the Russian Federation; (3) scientific & methodological recommendations for intellectual continuity determination of the intellectual activity results and the intellectual property objects.

Turkey

- There exists the practice of distribution of legal documents, CDs, advertising materials and teaching booklets.

Uzbekistan

- There exists the distribution practice of materials in the form of booklets and CDs

Kazakhstan

- Study materials are distributed in the form of brochures, disks, printed out presentations, slides, legal texts on IP, books

Moldova

- Study materials are distributed in the form of brochures or notes of training courses

Malta

- Study materials are distributed in the form of brochures, disks, printed out presentations, slides, legal texts on IP, books

Poland

- Information is not available

Ukraine

- Presentations of lectures are distributed, training materials, Ukrainian laws on Intellectual property, and brochure «Basic facts about Intellectual property»

According to the analysis of the questionnaire forms, one can conclude that a systematic approach and methodological recommendations in providing the IP teaching process with necessary teaching aids have not yet emerged. The replies to this question are not provided in full scope, and our opinion is that we need additional information.

Arrangement of practical training and role-playing / simulation games for teaching of state office employees

No.	***Country***	***Conducting of practical***	***Conducting forms of***

in succession		*training and role-playing / simulation games*	*practical training and role-playing / simulation games*
1.	*Bulgaria*	Not conducted	-
2.	*Czech Republic*	Not conducted	-
3.	*Hungary*	Not conducted	-
4.	*Georgia*	Not conducted	-
5.	*Latvia*	Not conducted	-
6.	*Lithuania*	Conducted, but not in all educational institutions	In Šiauliai University - imitation of real situations
7.	*Montenegro*	Not conducted	-
8.	*Romania*	Not conducted	-
9.	*Russian Federation*	Conducted	- *Role plays* - *Imitation of real situations*
10.	*Slovakia*	Conducted	*Imitation of real situations*
11.	*Tajikistan*	Not conducted	-
12.	*Turkey*	Not conducted	-
13.	*Uzbekistan*	Conducted	*Imitation of real situations*
14.	*Kazakhstan*	Conducted	-
15.	*Moldova*	Not conducted	-
16.	*Malta*	Conducted	*-role plays*
17.	*Poland*	Not conducted	-
18.	*Ukraine*	Conducted	*-role plays*

From our point of view, the lack of practical training by the teaching of state office employees has an adverse impact on the teaching and formation of professional skills.

Information to be introduced into officials' teaching

No. **in succession**	***Country***	***Substance of international agreements and international acts in the IP field***	***Laws of foreign countries in IP field***	***Existing law enforcement practice in IP field (including court practice)***
1.	*Bulgaria*	Yes	Yes	Yes
2.	*Czech Republic*	Yes, *but not only for government officials*	Yes, *but not only for government officials*	Yes, *but not only for government officials*
3.	*Hungary*	Yes	No	No
4.	*Georgia*	Yes	Yes	Yes
5.	*Latvia*	Yes	No; only to a limited	Yes

			extent as examples	
6.	*Lithuania*	Yes	Yes	Yes
7.	*Montenegro*	Yes	Yes	Yes
8.	*Romania*	Yes	Yes	Yes
9.	*Russian Federation*	Yes	Yes	Yes
10.	*Slovakia*	Yes	Yes	Yes
11.	*Tajikistan*	Yes	No	Yes
12.	*Turkey*	Yes	Yes	Yes
13.	*Uzbekistan*	Yes	Yes	Yes
14.	*Kazakhstan*	Yes	Yes	Yes
15.	*Moldova*	Yes	Yes	Yes
16.	*Malta*	Yes	Yes	Yes
17.	*Poland*	Yes	Yes	Yes
18.	*Ukraine*	Yes	Yes	Yes, only for judges

Virtually all representatives of the analyzed countries were like-minded relating to the necessity to introduce the following information into the teaching process of state office employees:

- *The substance of international agreements and international acts of an advisory nature in the IP field;*
- *The laws of foreign countries in IP field;*
- *Information about existing law enforcement practice in the IP field (including court practice).*

Combination of teaching and practical activities in the field of intellectual property

The teachers in a number of countries frequently combine their academic and practical activities in the field of intellectual property, for example:

Bulgaria

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participation in litigation (disputes at law) connected with intellectual property.

Czech Republic

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participation in litigation (disputes at law) connected with intellectual property

Hungary

- Inaccurate information.

Georgia

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participation in litigation (disputes at law) connected with intellectual property.

Lithuania

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations

Latvia

The instructors who teach programs are involved in practical activities connected with IP, including:

- consultations for interested persons, including also from other state bodies, which provide funds for specific EU programs, for the tailoring of regulations relating to intellectual property defense in universities and scientific establishments with state financing
- expert activities
- participation in litigation (disputes at law) connected with intellectual property

Montenegro

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations

Slovakia

The instructors who teach IP programs are involved in a practical activities connected with IP, including:

- expert activities

Romania

The instructors who teach IP programs are involved in practical activities connected with IP, including various types of activities (*incomplete information*).

Russian Federation

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participation in litigation (disputes at law) connected with intellectual property

Tajikistan

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations

Turkey

The instructors who teach IP programs are involved in a practical activities connected with IP, including:

- consultations
- expert activities
- participation in litigation (disputes at law) connected with intellectual property

Uzbekistan

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities

Kazakhstan

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participate in litigation (disputes at law) connected with intellectual property

Moldova

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities
- participate in litigation (disputes at law) connected with intellectual property

Malta

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities

Poland

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations

Ukraine

The instructors who teach IP programs are involved in practical activities connected with IP, including:

- consultations
- expert activities

In practically all countries with transition economy (countries in transition) the instructors combine their teaching and practical activities in the field of intellectual property. There is no doubt that such practical activities can enrich the instructors with invaluable knowledge, which they can use by teaching both the state office employees and the audiences of other categories. The practical examples could be used both for lectures and for practical training. They could be used for tailoring of situational tasks; the teacher can give the course participants advice for their best settlement/solution.

Availability of tailored teaching methods (approaches) on the subject "Valuation of intellectual property" (the main directions of teaching program)

***No.* in succession**	***Country***	***Methods on the subject "Valuation of intellectual property" are elaborated***	***Main directions of particular teaching program***
1.	*Bulgaria*	Yes	*The key elements of such training program are – the knowledge of IP rights and technology transfer*
2.	*Czech Republic*	Yes	The teaching program must include all issues of intellectual property protection.
3.	*Hungary*	No	-
4.	*Georgia*	No	-
5.	*Latvia*	***(Reply is not available)***	
6.	*Lithuania*	No	-
7.	*Montenegro*	No	-
8.	*Romania*	Yes	Traditional teaching methods are used
9.	*Russian Federation*	Yes	*1.* *he theoretical basis of valuation activity,* 2. *ormation of the IP market in Russia and its features,* 3. *ethodological support for the valuation of intellectual property rights,* 4. *ethods of valuing IP assets based on the income approach,* 5. *ethods of valuing IP assets based on a comparative approach,* 6. *ethods of valuing IP assets based on the cost approach,* 7. *Features of the valuation of various objects of IP,* 8. *aluation of the damages cost caused by the wrongful use of IP.*

10.	*Slovakia*	No	-
11.	*Tajikistan*	No	-
12.	*Turkey*	No	-
13.	*Uzbekistan*	No	-
14.	*Kazakhstan*	No	-
15.	*Moldova*	Yes	Program is attached
16.	*Malta*	No	-
17.	*Poland*	No	-
18.	*Ukraine*	Yes	There is a professional IP appraisers' training program, which is coordinated with the Fund of the state property of Ukraine, and also a program of the educational subject «IP valuation» which is used for the training of Masters of Intellectual Property Laws

Only a third part of all questionnaire poll respondents reply affirmatively to the question about the availability of one teaching method or another on the subject "Valuation of intellectual property rights". From our point of view, such a situation is a rather alarming one, because the valuation of intellectual property rights is of great importance for its management and commercialization, as well as for innovative and entrepreneurial activities.

GLOBALIZATION OF IP AND ITS EFFECTS ON IP TEACHING

CURRICULUM DEVELOPMENT

Objectives

This subchapter discusses the general objectives that should be borne in mind when developing an intellectual property curriculum. Needless to say, that not all of these objectives can be completely achieved. They should be prioritized by each country and institution, based on their economic constraints, short term and long term programs etc. Therefore, rather than attempt to achieve all these objectives at once, a country should merely keep them in mind when building the infrastructure of an IP curriculum.

Specialization

An IP curriculum should be developed in a manner that recognizes the different core specializations within the sphere of intellectual property law: Patent Law, Copyright Law, Trade Secret Law, Trademark Law and Industrial Design Law. Just as patients seek to acquire medical care from the relevant medical specialist, clients seek to acquire legal counsel from the relevant legal specialist. To achieve specialization, a particularized curriculum is required. Such specialization will also foster legal research and writing, which in turn will foster development of the jurisprudence of IP law – a crucial element in the progression of any legal system. Therefore, *specialization* is an objective to be considered in the development of an IP curriculum.

Maintain Adaptability

Another crucial objective in the development of an IP curriculum is the *adaptability* of the training environment, methods and contents to each unique type of audience. Training judges is nothing like training engineers and training law students is nothing like educating the general public. IP law training is relevant to different professions and the core curriculum should enable each one of the trained professionals to strive to excellence in their respective fields. There is no "one size fits all" curriculum and customized programs should be tailored to different audiences.

Implement a Globalized Approach

We have already reiterated that intellectual property law is, intrinsically, a globally-oriented subject matter. The cross-border nature of intellectual property assets (given their intangible and mobile nature) elicits a global approach and a global "state-of-mind". Indeed, numerous international treaties are now governing various aspects of IP law (to name a few: Trade-Related Aspects of Intellectual Property Rights agreement, Berne Convention for the Protection of Literary and Artistic Works, Patent Cooperation Treaty, International Convention for the Protection of New Varieties of Plants, Madrid Agreement Concerning the International Registration of Marks and the Strasbourg Agreement Concerning the International Patent Classification). Therefore, it is important that an IP curriculum be developed with forethought to expose the participants (in varying degrees) to the global aspects, trends and developments in IP law.

Aim for Technological Familiarization

A curriculum in IP law should also address the interplay between IP law and the world of technology. Intellectual property law, especially Patent Law, Trade Secret Law and Copyright Law, constantly interact with the swiftly changing world of technology. Technological developments, such as the Internet, mobile devices, biotechnology and more, inherently affect and are affected by intellectual property law. On the one hand, technological developments accelerate the branching out of newly recognized legal rights (or nuances of traditionally recognized rights). On the other hand, governing norms of IP law may accelerate or impede the surfacing of technological developments, or otherwise mandate a modification in the developed technology itself. Hence, an important objective in the development of an IP curriculum is to expose the participants to technological developments, in order to familiarize them with the current state of technology and its interplay with IP law.

Incorporate Flexibility

Changes in IP law are relatively rapid and frequent (compared to other more traditional legal areas). The changes are most frequent in regard to the substance of the law and the areas where it overlaps with other subject matter. First, we have the frequently changing substantive norms of intellectual property law, which are constantly adapted (by the courts and the legislature) to accommodate technological and socio-technological developments. Second, there are continuously new areas where IP law overlaps with other subjects of law or even other disciplines (such as economics, sociology and so on).

One example is Cyberspace law which, over the past decade, emerged as a distinct legal topic, which often interacts with IP law. Another example is "indigenous knowledge" and IP law, which has become a global legal issue. It is difficult to anticipate which field will overlap with IP law in the future, but the crucial point is that an IP curriculum must be flexible enough to accommodate new subject matters that may evolve from time to time. Thus, the objective of attaining inherent flexibility in the developed curriculum is important.

Define and Change the Boundaries of IP Law

IP law has many kinds of boundaries. There are the boundaries that surround the different fields of IP law such as Copyright, Trade Marks, Patents and so on. There are the boundaries that surround the entire IP law domain and separate it from other areas of law. One can also make a distinction between legal boundaries, normative boundaries and social boundaries.[55] Oftentimes, these boundaries do not overlap. Moreover, sometimes the public disregards the legal or normative boundaries, for example, by copying protected works. At other times people don't use IP assets they are legally entitled to use, because of lack of knowledge, ignorance or perhaps even due to overwhelming respect for the artist.

A good IP training must first start with delineating these different boundaries. However, this is only the start. Training is not only about conveying information. Indeed, as a basic requirement it should pass on knowledge. However, a good training should also help to change wrongful norms. In this respect, it is important to distinguish between the educational process of imparting knowledge and the educational process of bringing about a change in the public's attitude towards the prevailing norms regarding IP law. The latter is much more difficult and requires a different set of tools.

Gaps between the various boundaries are not a healthy phenomenon. Therefore, good education should try to close these gaps. Changing the norms, however, is not easy. Unlike the transfer of information, in order to change the norms, the instructor should not address the issues at hand from a technical point of view, but rather touch upon the deep roots of IP law. Only in doing so, he may succeed in conveying to the trainee the nature of the protection, its necessity and the justifiability of the imposed limitations. These are not always easy to understand since, for instance, in infringement, unlike theft, nothing tangible is taken. In order to convince the target audience that the prevailing norms should be changed, the audience should be brought to understand why these norms are improper. Therefore, IP training should be balanced. It must show the trainees not only the protective aspects of IP laws but also the benefits and the non-protective aspects. Thus, it is very important that, as part of the training, the instructor emphasize legitimate IP uses and address the public's rights, not only the public's obligations.

Defining a Core Curriculum (Areas of Law, Particular Subjects)

[55] According to several academic papers in developing countries, there is often a gap between the law and its enforcement and implementation in practice. *See* for example, Chris Armstrong, Prof. Jeremy de Beer, Dr. Dick Kawooya, Achal Prabhala and Dr. Tobias Schonwetter, *ACA2K Comparative Review of Research Findings: Copyright and Access to Knowledge in Eight African Countries*, www.aca2k.org (the International Development Research Centre (IDRC), (Published by Shuttleworth Foundation, Cape Town; and the LINK Centre, Graduate School of Public and Development Management (P&DM)), University of the Witwatersrand, Johannesburg (2010).

The most convenient and common structuring of an IP curriculum can be found in the following division to four categories: entry-level courses (best known as survey courses), specialty courses, advanced courses and practitioner oriented courses (also called practice courses). To this, one can add peripheral courses that deal with the boundaries of IP law and its relationship with other areas of law, science or technology. The first three categories are characterized by an ascending level of difficulty in IP law studies. Naturally, the entry-level courses are considered to be relatively easy. The specialty courses are considered to be moderately difficult. The advanced courses are those that warrant significant academic effort on the part of the attending students. Those are also the ones that build on prior knowledge. For reader convenience, Table 1 illustrates a number of typical course curricula in IP law, as offered by various American and British universities. Table 2 illustrates curricula of typical peripheral courses that can be added to the basic studies of IP.

From the discussion above, it should be noted that even in developed countries, law schools rarely offer the entire comprehensive variety of courses. Such an accomplishment is impracticable, given the limited teaching resources and number of IP professors. We suspect that in countries in transition this situation will only exacerbate and consequently, most academic institutions will have a genuine problem proposing a full IP curriculum to their students.

Can anything be done about it? In the long-run there are plenty of things that can be done – increasing the budget for research in the area of IP law; providing grants for IP scholars (either by the government or by private organizations); training IP law professors within home institutions, either within the country or in another country – all of these are only examples of steps that can be taken to enrich the universities' repertoire. But these steps take time. They will only affect the growth of IP education in the future.

Can we do something today? As noted elsewhere,[56] faculties taking their first steps in the instruction of IP law should consider commencing modestly. Thus, a sure bet is to start with an IP survey course and one or two specialty courses. However, in light of the growing demand for IP law, by being creative and thinking outside the box, academic institutions can expand their IP curriculum today, despite limited resources. Several alternatives come to mind. One is to join forces or courses with fellow universities, to allow for a joint degree in IP law; another approach is to establish students exchange programs, in which the students receive credits for courses taken in other universities, be it in the same country or abroad. Yet another option would be to use the benefits of visiting scholars, by asking them to teach various IP law courses - general or specific.

This last alternative has several advantages. *First*, courses will be taught locally. This will allow the university to supervise and control the quality of the courses. *Second*, this will also permit many students to take these courses and enjoy the visitors' knowledge, as opposed to only few who would be admitted to the student exchange program. It will also save the students the hassle of wandering to different universities in order to fulfill the program's requirements. *Third*, visiting professors come from different countries and therefore give various international perspectives on IP law. This can benefit not only students but also professors who would have the opportunity to exchange ideas and

[56] Michael Blakeney, *Handbook on IP Curricula and Teaching Materials*, *EC-ASEAN* Intellectual Property Rights Co-operation Programme (ECAP II) 10 *(available at* **Error! Hyperlink reference not valid.**).

expand their knowledge. *Fourth*, since the visitors arrive from different places and have various backgrounds, the repertoire is unlimited. Every year the university can invite new professors and thus create an ever changing program that would fit the rapid changes in the realm of IP Law. Another benefit of the "visitors program" is that it does not have to be limited to the academia. Some of the teachers can come from the private sector (successful IP lawyers), others from the civil service (governmental sector, lawyers from the PTO) yet others from the judicial branch (circuit court judges). To this, one can also add officials from international organizations such as WIPO. This diversity will not only provide the students with a variety of courses, each with a different knowledge base, but will also equip them with distinctive points of view on the IP process – something that may prove to be extremely valuable in their future practice.

The last option we would like to mention, regarding ways for expanding the IP curriculum in the present, is online courses. Online courses, a technology on which we will elaborate bellow, allow students to take an IP course through the internet using the student's computer. This teaching method has both pros and cons. One of the major drawbacks is the need for a comprehensive set of technological tools in order to fully capture the benefits of the course. The challenges raised by online exams and submission of quizzes via the internet, while grading them in a different location, or even electronically, are only the tip of the iceberg.

Survey Courses

Survey courses aim to provide a broad, introductory-level overview of the entire intellectual property law domain.[57] The objective of a survey course is to introduce students to the variety of disciplines in intellectual property law, namely Patent law, Trademark law, Copyright law, Trade Secret law and Industrial Design law. A survey course may also address ancillary topics, such as the tort of passing off, Internet and E-commerce law, etc.

Typically, a survey course aims to provide rudimentary understanding of the various forms of legal protection available throughout the IP law domain, as well as the advantages and disadvantages of each form of protection. A survey course also addresses the uniqueness of each area and the places where they overlap. Given its surveying nature, the survey course can be relatively easily adapted to accommodate the requirements of non-jurist audience, such as business administration or engineering students.[58]

It is worth mentioning that some universities, within certain contexts (such as LL.M. programs), intentionally offer a wide-scope survey course.[59] This approach provides the students with a significantly deeper understanding of each of the areas of the IP law

[57] *See* Gomulkiewicz , *supra* note 3 .

[58] *See supra,* – Identifying Different Types of Training.

[59] *See,* for example, "Intellectual Property Law Core" offered at the University of Washington's School of Law, *infra* Table 1.

domain. Hence, students that attended such a mega-survey course, will find little benefit in attending the specialty courses that address the same areas of IP law.

The following word of caution is necessary: drafters of a core curriculum in IP law may be tempted to include the entire survey course as a topic within the general course of Property law. Some aspects of the IP survey can also pop up in the Law of Torts, Contracts etc. The rationale behind this practice is to introduce *all* students to some of the core questions in IP law. We strongly advise against this approach. Our experience has led us to conclude that whenever the survey course is bundled with the course on general Property Law, Torts or Contracts the topic of IP law slowly fades out of the course's syllabus. It is destined to be overtaken by the numerous issues that must rightfully be covered in traditional Property Law (i.e. real estate and chattels), Tort Law or Contracts. This outcome undermines the effort to promote the education of IP law.

Different variations of the survey courses can be found in different universities and among different professors. The survey course allows a great flexibility in the weight given to any of its parts. Thus, some surveys can lean, heavily or lightly, towards patent law, while others towards copyright law or even trademarks. This may often derive from the professor's background and expertise – the more she feels comfortable in one area, the more she wishes to expand on it in class. It can also serve the university's interest to cover more deeply those areas which are not covered by specialty courses. Another variation between the surveys is the emphasis given to theory or practice – again, each university and professor, based on their own agenda and knowledge.

One of the advantages of law schools in developed countries is that professors have different text books from which to choose for survey course. Thus, even a relatively young and inexperienced professor can teach the survey course, picking a textbook that fits her IP portfolio. A word of caution, however, is needed – this flexibility has its boundaries and an institution that respects itself cannot provide a survey course that will only lightly touch upon, for example, Copyright Law and Trademark Law. The basic areas of IP law - namely the three major fields (Copyright Law, Patent Law and Trademark Law) and most often Trade Secret Law - should always be covered.

Specialty Courses

Specialty courses are aimed at providing an intermediate-level understanding of a single area of law within the IP law domain. The in-depth study is thus facilitated by devoting a separate course to each of the various fields of IP law. Specialty courses typically explore *Copyright Law*, *Patent Law*, *Trademark Law* and *Trade Secret Law*. It is not rare to find Trademark Law bundled with *Industrial Design Law* or with *Unfair Competition* in a single course. The *tort of passing off* is usually taught as part of the course on Trademark Law, but it may also be part of the course on Trade Secret Law or even Torts.

Similar to courses in other fields of law, the specialty courses in IP provide a comprehensive view of the law-in-effect and the law-in-theory. Theoretical foundations are introduced and discussed. The underlying rationales are argued for their strengths and criticized for their weaknesses.

Relevant statutes and regulations play an especially important role in IP law, even in common-law jurisdictions.[60] Thus, they are an important pillar of the various specialty courses. Court decisions are also a paramount element in the rapidly evolving world of IP law, construing the statutes and doctrines and applying them to the facts of every case. Any specialty course must give adequate attention to courts' decisions pertaining to its topic.

In light of the above mentioned effects of globalization on IP teaching, it is easily understood why any specialty course must also address the international treaties relevant to its topic (e.g. Patent Cooperation Treaty - PCT) and provide at least an introduction to the international legal instruments in the service of the relevant IP law.

Advanced Courses

There are several types of advanced courses that serve different purposes. *The most prominent type* is the advanced Copyright, Patent or Trademark Law course, which provides a deeper understanding of each area. In these classes or seminars, students are being familiarized with the nitty-gritty details of each of these fields of law, learning their complexities as well as drawing their boundaries. Here, the students plunge from the broad strokes of general theories to the fine nuances. In addition, students in these courses should also taste the flavor of international law. By passing the final exams, their knowledge should allow them to practice these areas of law. *Another type* of advanced course is the one that depicts one or more aspects within a specific field of IP law and explores it. An example for such a course could be "the concept of fair use in copyright law". One can learn from such a title that the course really zooms in on a particular element, while exploring it from various angles. Sometimes, the zooming in would even be of a greater magnitude. Such would be the case in the course titled "fair use in films".
A third type of advanced course would capture a specific problem or phenomenon and analyze it from different IP angles. To give a few examples, one can think of the following titles: "Intellectual Property as a Strategic Asset"; "IP in Innovation Industries" and "IP and Software Protection". Here, the emphasis is on the phenomenon and the course revolves around it, revealing the different IP aspects related to it.

Practice Courses

In the preparation for the profession of law in general and the domain of IP law in particular, the importance of practical experience cannot be stressed enough.[61] This is why practice courses are indispensable to those who will later pursue a practice in IP law. These courses aim to provide the students with the basic tools necessary to practice IP law in the real world. They emphasize the procedures involved in IP licensing (also known as prosecution) and litigation. Some of these courses take a clinical approach, giving students the opportunity to experience the entire life-cycle of delivering legal counsel to clients in the realm of IP law. Examples for such courses could be: "Patent Litigation"; "Patent Prosecution"; "Using Surveys in Trade Mark Law" etc.

Peripheral Courses

[60] *See* Handbook on IP Curricula and Teaching Materials*, supra* note 56, at 6.
[61] WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW 14 (2007) ("[E]ffective legal preparation requires introduction to the perspective of practice.").

One of the main purposes of the peripheral courses is to show how IP law amalgamates to a given legal system. Teaching these courses, professors will zoom out and evaluate how the goals of IP law fit in the general tapestry of the law. On the one hand, they will demonstrate the conflicting areas and discuss how to balance contradicting objectives. On the other hand, these courses can also emphasize how IP law goes hand in hand with other areas of law and how they reinforce one another. A discussion of the interplay between IP law and other fields of law could be seen in courses such as "Intellectual Property and Antitrust law", "Copyrights and Freedom of Speech", and "IP and the Law of Restitution". *Another type* of peripheral courses is one that deals with the interaction between IP law and non-legal fields. Such is the case in the course titled "Economic Analysis of IP Law". "Trade Marks and Business Marketing" is yet another example. *A third type* of peripheral courses deals with a certain phenomenon or field and analyze it from different angles and legal perspectives. These courses can also be described as part of the advanced IP courses category. The reason to place them here is because they deal with a garden variety of legal issues, of which only some relate to IP law. Examples for such courses are "Biotechnology Law & Policy", "Media Law", "Cyberspace Law", "Computer Law" and "Internet Law".

Most of, or all the peripheral courses will be considered advanced courses. They may take the form of an elective or a seminar, requiring students a significant effort in independent research, analysis and writing.

From all of the above it is evident that the categories into which IP courses are divided are not entirely exclusive. There is some overlapping and a specific course may have elements indicative of two or more categories.

Survey Courses vs. Specific Courses

One of the basic decisions a law school should make is whether to provide a survey course or several more specific courses. Another basic decision is how extensive the survey course should be. Based on common practices, it can run from 2 to 8 credits. Thus, for example, the university needs to decide whether to prefer a 4 credits survey course over three specific IP courses of 2 credits each– on Copyrights, Patents and Trademarks. This decision is oftentimes not easy. On the one hand, the survey course has some benefits – it provides a broad coverage of IP law for entry level students. Thus, students without any prior knowledge can be introduced to different areas of IP law and then decide if and when to expand their knowledge by taking more specific courses. Those students who will not take any further IP courses will earn a general view of what IP is all about. This basic knowledge can be enough for a general legal practitioner. The survey course has another advantage – in providing students a bird's eye perspective of IP law. Oftentimes a lawyer is faced with a factual pattern which he has to categorize to different fields of law. Since the boundaries between the different IP regimes are often not well demarked, it is not easy to decide which path to pursue. Sometimes there are several options- some better and some worse, depending on the factual pattern, the client's orientation, his future plans etc. The survey course can provide the lawyer with a more general perspective on the dilemma and offer him several ways to solve it, emphasizing the pros and the cons of each path. The alternative of taking several specialized courses will not provide the student with an equivalent broad view, since each specialized course will concentrate on the basic characteristics of a given area. Nonetheless, IP survey has

also its drawbacks. The survey course cannot provide an in-depth analysis of the individual fields of law. Thus, the survey course will inevitably be shallower and perhaps insufficient for those students who will not proceed with further IP courses.

One could always argue that the number of credits is what counts. A two credit basic course does not allow for an in-depth analysis of the entire field of IP law. However, an 8 credit course might. In the latter case, the professors have enough time to present a thorough analysis of each of the respective fields. The question is whether the students wish to invest so much time and effort in an introductory course? And what about those students who know upfront they are only interested in one subject matter?

One sort of a compromise is to offer both the survey and the specific course at the same time. For instance, the survey will cover 4 credits and the students will be able to choose further specific courses either on Copyrights, Patents or Trademarks. This combination raises a different set of problems. Should the basic course be a preliminary requirement for the specific courses? Given its coverage of the fundamentals of IP law, some universities make IP survey a prerequisite to the specialty courses in IP law. If so, this means that all students must take the survey course before they may proceed with their IP education. It would put a lot of pressure on the survey course and impose it upon those whose interests are more limited. If IP survey is not a prerequisite, however, a decent part of the specific courses would have to cover some of the basics of IP, which would mean a repetition for those who did take the IP survey. There is no easy answer to these questions and different institutions have adopted different solutions.

Another question that should be addressed by law schools is at what stage is it recommended to introduce the IP courses – the first year, the second or third year or maybe only during the fourth, where legal studies extend over a 4 years program. Generally speaking, IP courses and survey courses in particular, are not to be taken by students in their first year. The first year is reserved for basic legal training and IP law generally requires some basic legal understanding and knowledge as a prerequisite. What about the second year? Some law schools recommend taking the survey course during the second year, while others recommend taking it during the third year. Both options have some advantages and some drawbacks. Taking the survey later in their academic program allows the students to build on their prior knowledge, and allows for better integration of IP law with other areas of law. On the other hand, especially where the survey also serves as a pre-requisite to other courses, taking it on the second year is almost a must for those who want to proceed with specific IP courses. In any event, it is recommended that each law school have an academic adviser to help the students with the planning of their IP portfolio- e.g. deciding which courses to take and when to take them.

Resources and Skills

Qualified IP Teachers

The quality of an intellectual property educational program will largely depend *on the level of experience and interest of the faculty*. Some universities around the globe have made IP law or some aspects of it their specialty. However, many other universities do not have IP specialists, and the education of students in intellectual property, if at all, is placed in the hands of professors who regard IP as a side interest, subsidiary to their main teaching

load. Often times this is exacerbated by the fact that IP courses are only electives, while professors must teach at least one traditional and mandatory field of law such as Torts, Contracts etc.

It seems that lately, because of the rising importance and popularity of intellectual property, more professors are making this field their area of specialty. Full time professors who decide to make IP law their specialty must undertake the unenviable task of becoming skilled at the maze of detailed knowledge necessary to master IP law. They will, however, find in it a rewarding world of intellectual challenge that will make the effort worthwhile.[62]
University professors are not the only ones who are qualified to teach IP law. In recent years we notice another trend. Many experienced IP practitioners have decided to leave their practice of law and dedicate themselves to full time teaching. Once they gained the necessary experience and skills for academic teaching, they can become highly effective teachers.

An interim source of qualified teachers that may effectively fill the vacuum left by full time IP professors, consists of practicing attorneys who are willing to spend some of their time (for example - one or two nights a week) teaching IP courses. These instructors provide an effective and economical way of building a comprehensive and high quality IP program. It is a symbiotic process - it brings the benefit of many different qualified experts to a university program, providing a wide array of expertise that could not be found in a few individuals, at a fraction of the cost. It gives the practitioner the prestige that comes from being affiliated with a law school program, the motivation to stay up-to-date with regard to new developments in law, and the stimulus and inspiration that comes from teaching fresh minds, who engage in re-thinking old problems. Students enjoy listening to stories about the practical experiences of the practitioners, and the practitioners enjoy sharing their experience with an audience which is eager to listen.[63]

From the above discussion, it is clear that decent IP training can be provided by a mixture of law professors, former professionals and part time practitioners. The question that comes to mind then is how to divide the teaching load? It seems that *Basic IP courses* should be left to full time law professors. They can dedicate the time needed to guide students through the program and direct them to the specialty that they are most suited for. They can teach both theory and general practice and provide a bird's eye perspective of the entire field. They also enjoy the benefit of understanding legal education and the pedagogic needs of law students. *Special or advanced courses* can be taught by both professors and former professionals. The latter have the advantage of having practiced IP law in a specialized market and mastered the minute details of it. Part time practitioners can teach *practical courses* such as IP litigation but also *special courses* that require constant updating. Thus, a practitioner that deals with computer law or media law on a daily basis is most suited to teach a small group that is interested in this specific field.

"Training the Trainers"

[62] Jaime Sevilla, The Emerging Needs For Teaching And Training (ASEAN REGIONAL SYMPOSIUM ON TEACHING AND TRAINING OF INTELLECTUAL PROPERTY) (1995).
[63] *See id.*

No matter how good they are, Professors and lecturers of IP law can always be trained to become better teachers, acquiring leading edge teaching skills as well as catching up with recent IP changes and advancements around the globe.

On april 26th, 2011, a workshop was held in Geneva regarding the *Administration of Intellectual Property Academies: Methodologies and Future Collaboration*. The Intellectual Property Office of Trinidad and Tobago proposed to commence a *'Train the Trainers'* program in order to equip the lecturers within the Intellectual Property (IP) Academy with the skills required in order to lecture on IP. The recommendations of this workshop were that training of trainers must be carried out on an ongoing basis and not as an isolated activity. After several training sessions, the IP program should be reviewed and it should be decided whether further training is needed. The continuing education would be an excellent opportunity to receive feedback on how the training of trainers may be improved.[64]

Professors from countries in transition can be trained in several ways. They can participate in national or international workshops or seminars specifically organized to enhance teaching skills. These workshops and seminars can also familiarize them with recent, state of the art teaching technologies. In addition, visiting programs can be established in order to expose the professors to the teaching process in ordinary classes in leading institutions of developed countries without the need for intermediaries. Then, they can bring these teaching skills and techniques to their home institutions, adapting them according to their needs. Professors from leading institutions in developed countries can also visit institutions in countries in transition, either teaching a course or auditing regular classes in order to later advise the local professor how to improve his course. Another method that can be used is to watch "model classes" – either online or recorded on DVDs - to learn new skills and improve teaching capabilities.

Contacts Among Lecturers

Contacts and connections among lecturers from different countries are essential in order to enhance and strengthen IP teaching and research. In several countries, professors and researchers often come together to form an association in order to promote their common interest. However, in the field of IP teaching, such associations are rare.[65]

WIPO, for example, has created a course for the purpose of promoting contacts among professors of IP law. In 1981, WIPO established ATRIP – the International Association for the Advancement of Teaching and Research of IP.[66] ATRIP, whose membership is numbered at over 300, consists of professors and researchers throughout the world. It holds an annual congress. At each annual meeting, professors residing in different parts of the world recount their experiences and their efforts to obtain approval for the introduction of new IP courses. They share information about the extent of time devoted to develop new programs, about the teaching materials they use, about the number of IP students at their home institution and their level, and about the results they achieved in

[64] International Workshop on the Administration of Intellectual Property Academies: Methodologies and Future Collaboration, Geneva, Switzerland (April 26 – 29, 2011).

[65] *See* Sevilla, *supra* note 62.

[66] *See* http://www.atrip.org/.

enriching IP education. These presentations provide the participating professors with much to think about when returning home.

Other contact networks are, for example, the *European Intellectual Property Teachers' Network* **(**EIPTN):[67] The EIPTN brings together individuals from across Europe to exchange ideas on the best practices for teaching IP, as well as on novel teaching and learning activities relating to intellectual property. The EIPTN is interdisciplinary in focus, reflecting intellectual property teaching in a range of disciplines including law, politics, international relations, business studies, economics, computing science, engineering and physics.

Sharing Teaching Resources and Materials

It is not uncommon for faculty members to invest a great deal of personal time, effort and creativity developing digital teaching tools. Understandably, many consider the materials they develop as their own - in a legal as well as intellectual sense- and are not necessarily willing to forfeit their ownership. Faculty may be less inclined to make their teaching materials available to others if their institutions do not reward such innovation. Even in an environment in which educational excellence is nurtured, other concerns of faculty may hamper the free exchange of educational materials. Administrators or deans who want to pool teaching materials in databases in order to improve access should carefully address these concerns. If the concerns of faculty members are not recognized and adequately addressed, such educational databases will not be supported and consequently may well be doomed to fail.[68] In order to encourage the sharing of teaching materials such as class notes, Power Point slides, multimedia files (that involve vivid example of cases or hypotheticals) etc., the universities should develop some remunerating mechanisms. These incentives do not necessarily have to involve actual payment and could also be indirect. So will be the case if sharing her material will earn the professor some credits when considering her promotion.

Online Resource Sharing

A study that was held in 2001 found that 82% of a survey repondents were interested in becoming part of a free community for the sharing of course resources/material and teaching ideas. The most popular features of such a community include the availability of pedagogical ideas, solutions to teaching problems, expert advice, classroom management tips and professional recognition.[69] This research focused on two main websites: the MERLOT website[70] and the WLH website.[71]

The following figure illusrates the reasons why instructors post their materials in an online community.

---

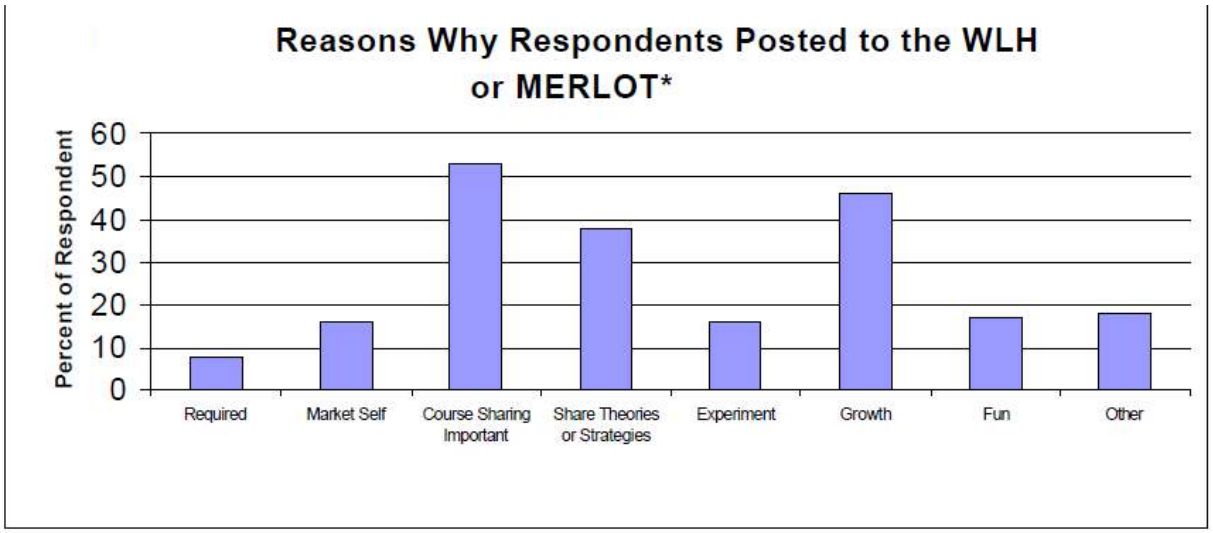
[67] *See* http://www.eiptn.org/ .

[68] Sebastian H. J. Uijtdehaage,, Janice Contini, Chris S. Candler, & Sharon E. Dennis, *Sharing Digital Teaching Resources: Breaking Down Barriers by Addressing the Concerns of Faculty Members*, ACADEMIC MEDICINE 78(3) (2003).

[69] Bonk, C. J. (2001). Online Teaching in an Online World. Bloomington, IN: CourseShare.com.

[70] *See* http://www.merlot.org/merlot/index.htm

[71] *See* http://wlh.webhost.utexas.edu/index.cfm



Many faculty members anticipate that teaching online will become more frequent in the future. Before this occurs, it is useful to develop online communities for these "freelance instructors". To establish such communities, universities and colleges may provide web based support mechanisms including online course development and teaching, library resources, professional information about upcoming conferences, survey and teaching evaluation services, simulation tools, freeware, teaching advices, mentoring or tutoring help, and relevant online papers and reports.

Textbooks, Teacher Manuals and Course Materials

Pedagogy is culturally bound. While the general course curriculum reflects the priority of the national council for higher education in each country and its basic educational philosophy, the design of student textbooks and teacher's manuals reflects the characteristics and preferences of "the people", namely students and teachers.[72]

A textbook is one of the most important teaching resources a teacher can put his hands on. Where a variety of textbooks exits – it allows the professor to teach the same subject matter, say Copyright, from completely different angles. For example, in the US, a professor can choose from various Copyright textbooks, all of which differ in their pedagogic teaching methods, political theories, their attitude towards the protection of the author vis-à-vis the rights of the public etc. Thus, there are textbooks that emphasize theory while others emphasize black letter law; those that preach economic analysis vs. those that emphasize natural rights. There are textbooks that focus on orthodox Copyright Law while others that mainly deal with Copyright and the new technology. There are basic textbooks alongside advanced ones. Needless to say, that each and every one of them is updated annually to include the recent changes in law, theory and practice. Establishing access to a variety of textbooks can tremendously help teachers in their task of teaching IP law on all various levels and orientations.

---

[72] LIANGHUO FAN, HOW CHINESE LEARN MATHEMATICS: PERSPECTIVES FROM INSIDERS (2004).

Textbooks provide the teacher with more than just a text. They also provide him with a teacher's manual. These manuals offer him careful directions on how to teach, which issues are more complicated and require careful attention, what issues are to be emphasized, which subjects must be taught and which can be skipped, etc. They also provide him with solutions to the problems and quizzes presented in the book. The modern textbooks are often supplemented by Power Point presentations that the professor can use and adapt to his own needs, based on his teaching preferences.

The textbook is not only for the professor. It is first and foremost for the student. It gives the student access to most of the course's materials, saving him the time needed to search and photocopy it. These materials are edited and hence only contain the essence needed for the learning process, while omitting "unnecessary" parts. The textbook organizes the materials in a schematic manner, putting every statue, case and regulation in perspective in order to show the student the general picture. The students can bring these casebooks to class and can follow the teaching materials as the professor progresses with his lectures and presentations.

In developed countries, where the use of textbooks is the norm, and textbook publishing is competitive, the attractiveness of a textbook is often based on the quality of the assistance it offers to teachers and instructors. A “good” textbook is usually one that provides the basic coverage of the subject matter, supplies sufficient examples in problem solving, has an accessible page layout for skimming etc. Regrettably, such a variety of textbooks does not exist in many countries in transition. There are only few, somewhat old, textbooks, that keep the training process stagnated. Therefore, encouraging the writing of new textbooks or translating foreign books and adapting them to the relevant legal system, should be of high priority in the process of improving IP training.

Tailoring the Program to the Particular Goals

The core curriculum defined in the chapter titled "Curriculum Development" laid down the fundamental approach to teaching intellectual property law to students of a first degree and advanced degree in law. But recall that the subchapter titled "Defining the Different Objectives of Training at Various Levels" identified and discussed the different objectives of IP training for various groups of audience, and not only law students. It was apparent that the varying objectives call for a different approach in the training program of each class of audience. This subchapter will now suggest a tailored program for the training of groups other than law students.

Tailoring the Program to the Goals of Continuing Legal Education – Conferences, Workshops and Distance Learning

Practicing lawyers are limited in their ability to allocate time away from their busy daily practice. Hence, continuing legal education (CLE) must be tailored to the time constraints of active practitioners. Naturally, most lawyers can incorporate neither full-time nor part-time education into their schedules. Moreover, the purpose of CLE is to address selected, pin-pointed topics rather than cover the full extent of a certain field of law. This is why CLE should take the form of concise, independent seminars.

Traditional CLE seminars often took the form of conferences or workshops whereby one or more expert speaker presented and discussed a legal issue or topic. Such seminars

are inherently scalable, and may range anywhere from just a few hours to no more than a few days. The length of such seminars obviously depends on the scope of the topic presented. The scope of a discussion on a recent court ruling is significantly shorter than the scope of a thorough discussion on strategies of IP asset protection.

CLE seminars may also be offered in a distance-learning environment, thus providing an even greater flexibility to accommodate the time constraints of the busy practitioner. Such seminars may be formulated as independent modules of study that a practitioner may take at any time. But seminars may also be taken online in a live and interactive environment, where a pre-scheduled event is transmitted online to all participants and each participant can interact with the speaker as well as with his peers.
This methodology of CLE training is also well suited to achieve the goals of basic IP training to non-IP lawyers. Given the limited scope of such training and the target audience of practicing lawyers, the CLE methodology seems perfect for this task.

Tailoring the Program to the Goals of Training Patent Agents – Targeted Courses Combined with Apprenticeship

We have already seen that a patent agent must possess both formal knowledge in patent law and practical skills in the preparation and prosecution of patents. This observation naturally leads us to conclude that training programs for patent agents should consist of two essential elements: targeted courses and practical work.

Targeted courses will provide the trainees with the necessary knowledge on the basics of patent law: patentability, inventorship, infringements and claim construction. These courses should also cover the basics of claim drafting and interpretation. Moreover, some of courses, often taught by practitioners, may also focus on the procedural aspects of the patent application. Given the relatively limited scope of these courses, they may be formulated to a condensed period of training. They need not adhere to a university's semester time frame or its weekly schedule, and in fact, they may be run by training institutions other than universities.

Like others,[73] we believe that most of the practical aspects of training a patent agent should be taught in the form of apprenticeship (internship). The length of such an apprenticeship is debatable, and may run anywhere from 12 months to several years.[74] But the focus should be on the substance of the apprenticeship. Apprenticeship is essentially practical work in patent law, under the guidance of an experienced, registered patent agent. The practical work focuses on the preparation and prosecution of patent applications. In the beginning, the guidance rendered by the experienced professional is intensive. But as time progresses, the intensity of the guidance decreases and the trainee takes an increasing load of independent work. By the end of the apprenticeship period, the trainee should be able to independently handle all aspects of a patent prosecution, from the initial interaction with a prospective client, all the way through the approval and issuing of the patent. A state exam can give a seal of approval to the entire learning process – both the theoretical and practical aspects.

[73] *See* Carlson, Migliorini & Vacchiano, *supra* note 41, at 138-14.
[74] For instance, Canada requires an apprenticeship period of 12 months, Israel requires 2 years and New Zealand requires 3 years.

Tailoring the Program to the Goals of Training IP Lawyers –Extensive Courses Combined with Apprenticeship

Recall that IP lawyers must possess vastly greater knowledge in IP law than non-IP lawyers. In light of this, we believe that there is no escape from formal IP training to lawyers. Similarly, given the significant practical aspects of rendering legal counsel in IP law, there is no escape from apprenticeship.

A suggested set of courses for training lawyers in IP law would typically include a combination of specialty courses (providing an extensive coverage of the various fields in IP law), advanced courses (providing an even greater in-depth coverage to one of the fields of IP law, including the international aspects thereof) and practice courses (simulating practical aspects of prosecution, litigation, etc.).

One of the key issues arising from this approach, is bridging the gap between the above mentioned gold-standard training (readily available in developed countries, most notably in the US), and the limited academic resources available in countries in transition. This is where the WIPO Academy may come into play, with educational programs such as Summer School on IP[75] and Distance Learning Courses[76].

Complementing this formal training is a period of apprenticeship, which is an indispensible training tool for the intellectual property practitioner. Similar to the apprenticeship of patent agents, IP lawyers, in the initial period of their professional career, should be guided by an experienced IP lawyer.

Tailoring the Program to the Goals of Training Judges –Periodic Workshops

As we have mentioned above, training for judges should focus on offering the tools that may aid them in approaching IP cases brought before them for adjudication. Like CLE, training for judges addresses selected and pin-pointed topics. Our experience suggests that training for judges is best carried out in workshops whereby experienced professionals (professors or practicing lawyers) present analytical tools and discuss legal issues in IP law that are most relevant to judges presiding in IP trials or appellate courts. Such seminars may also host professional guest speakers from abroad, such as judges from a foreign IP tribunal, officials from a foreign patent office, professors and so on. The frequency of such seminars may vary according to the current level of proficiency in IP law held by presiding judges. In places where IP litigation has been thus far minimal, such seminars will need to be held in greater frequency and intensity, in order to bring the judges' proficiency in IP law, to an adequate baseline.

Tailoring the Program to the Goals of Training Engineers, Scientists and Business Managers – A Single Course on IP

Engineers, scientists and business managers should be exposed to IP training that is markedly different than that of any jurist audience. We believe that the goals of training these audiences are best served by creating a distinct course on IP for these non-jurists. These courses must not pretend to bestow legal skills and knowledge. Instead, they

[75] http://www.wipo.int/academy/en/courses/summer_school/index_all.html
[76] http://www.wipo.int/academy/en/courses/distance_learning/index.html

should be structured only to familiarize the audience with the basic notions of copyrights, patents, trade secrets, trademarks and designs. This general familiarization should be accompanied by real world examples that are closely related to engineering, science, and entrepreneurship so that the target audience can envision how IP is relevant to their career. Next, these courses should underscore practical aspects of utilizing the IP system by these professionals: obtaining information from patent searches, fair use of copyrighted material, forbidden infringements and basic guidelines for protecting one's own IP assets. In assembling this IP training course, it is useful to consult with a sample textbook, such as INTELLECTUAL PROPERTY LAW FOR ENGINEERS AND SCIENTISTS[77] or UNDERSTANDING AND PROFITING FROM INTELLECTUAL PROPERTY: A GUIDE FOR PRACTITIONERS AND ANALYSTS.[78]

Given the disparate professions of scientists and engineers on the one hand and business managers and entrepreneurs on the other hand, we believe that a separate course on IP should be assembled for each. The focus of an IP course for business managers and entrepreneurs (strategies, risk-management, valuation and so on) is different than that of a course for scientists and engineers (searching patents, protecting one's own creations, employer's rights in employee's IP assets, and so on).

The proposed tailored course is career-oriented, in the sense that it aims to provide students with practical tips for their respective professional careers, supplemental to their core discipline in science, engineering or business management. Therefore, we believe that such a course should be taken no earlier than the last year of the studies. Furthermore, given the stand-alone nature of such a course, we highly recommend that it be offered independently of a full academic program, perhaps in an online, distance learning environment.[79] This will allow growing circles of practicing scientists, engineers and business managers, not currently engaged in post-graduate programs, to benefit from the course.

Tailoring the Program to the Goals of Training the General Public – A Variety of Approaches

As discussed earlier, training the general public serves to achieve two primary goals: passing on the knowledge of key points and concepts in IP law and convincing the public why IP protection in general is morally and socially appropriate (even though it may be criticized for its de-facto implementation particulars). A thorough discussion of the public's education methods, their advantages and drawbacks, is beyond the scope of this tool. So is an analysis of how such an educational undertaking will be perceived by the public and its anticipated effects. Nonetheless, we would like to suggest three approaches tailored to educating the public: high-school civics class, public advertising campaigns and online tutorials. These approaches are the platform via which the public can be educated about the social rationales of IP, its public benefits, the public's fair use rights, the hazards of IP infringements and the value of obtaining protection for an individual's own creations.

---

[77] HOWARD B. ROCKMAN, INTELLECTUAL PROPERTY LAW FOR ENGINEERS AND SCIENTISTS (2004) (Prof. Rockman has been teaching a course on "Intellectual Property Law for Engineers and Scientists" in the Master of Engineering program of the University of Illinois at Chicago).

[78] DELI YANG, UNDERSTANDING AND PROFITING FROM INTELLECTUAL PROPERTY: A GUIDE FOR PRACTITIONERS AND ANALYSTS (2008) (Prof. Yang has designed a classroom module to teach IP from a business angle to MBA students).

[79] For one example of an online IP course for engineers, *see* http://www.legalstudies.com/courses/IPLE.html

In many countries, a civics class is taught in high school. This class focuses on the rights, privileges and duties of citizens and their role in society. We suggest that high school curriculum include at least one lesson dedicated to intellectual property. While this lesson may be given by a professional guest lecturer, it is imperative that the substantive topics of this lesson be determined in advanced, preferably by a government agency that oversees high school education. This is to ensure that the contents of this lesson are not biased to any one point of view advocated by the guest speaker.

Next, public advertising campaigns can be used to convey simple and concise messages regarding IP. Such campaigns can exude the message that some types of highly common infringement (i.e. peer to peer downloading or software piracy) are morally unjust, as they amount to discreet theft.

Finally, online tutorials may be a complimentary tool for individuals who want to know more about IP. These tutorials may offer a diversity of frequently asked questions that are of special interest to the general public ("Is downloading songs illegal?", "Are the photographs I have taken copyright-protected?", "May I copy text from a book for my research paper?"). They may offer video clips addressing selected topics in IP to laypersons (such as fair-use, social rationales of the IP regime, and so on). The idea is to provide very basic guidance on the vast world of IP, in a tool readily accessible to all, operated and maintained by a largely disinterested party (a government agency or an academic institution).

DEVELOPING INNOVATIVE METHODOLOGIES FOR TEACHING IP

Teaching Methods

In this chapter we will explore several teaching methods available for teaching IP law. We will start with the classic methods and see how they can be adapted to better fit the needs of modern education. We will later explore some newer methods as well as several combinations between the old and the new. The use of the following teaching methods is not a precondition to teaching IP and different professors might choose different methods, based on their teaching preferences, their universities' budgets or technological constraints. However, putting these methods together, side by side, allows the reader to learn more about each and every one of them and to better understand the advantages and disadvantage of every method. Eventually, every teacher will pick the combination that fits his needs.

Teaching in the Traditional Classrooms

Lecturing in class is one of the oldest teaching methods and has a long history in academia. It almost seems like this method needs no elaboration. However, some facts are worth mentioning. Like any other teaching activity, the effectiveness of a lecture may vary, depending on the professor's teaching expertise, the size of the class, the nature of the students etc. In recent years, researchers have provided data suggesting that in order to boost the effectiveness of in-class learning, teachers should adopt, beyond the main lecture, some active learning strategies. These strategies create a classroom environment in which students actively participate in the learning process rather than sit as passive listeners. They also tend to help students to better understand the material and absorb it. Examples of active learning methods include students' presentations,

performances, in-class demonstrations, practice of skills and directed writing. It also includes assignments which the students need to work on in small groups, class discussions and the use of technology in the classroom.[80]

The use of technology however, requires a word of caution. While recent surveys show a rise in the use of technology in classes, some professors are leading an opposition against such use, pushing towards downsizing or containing the role of technology. They claim that modern technology and class aids are interfering with pedagogy in the classroom.[81] Just as many law professors now deploy a wide array of technological aids, so students increasingly come to class armed with laptop computers. This allows them to download the teachers' power point presentations before class and follow them as the lecture progresses. It also allows them to bring live examples from the internet to enrich the discussion, etc. But bringing laptops to the classroom could also be a distraction. Critics of the use of technology complain that laptops introduce too much competition for the students' attention, encouraging them to play computer games or watch DVDs and, with in-class internet access, to read and send e-mails (or instant messages), shop online or check out the latest political, financial or sports news. Therefore, when opting for the use of technology, one should also be aware of its drawbacks and try to minimize them. Thus, for example, limited or blocked internet connection in classes can enhance the students' involvement and participation.

Panel System

One of the main problems with lecturing in class is the passivity of the students. Classes in which the students participate usually ensure a higher quality of learning and absorption of the new material. One way to achieve participation is through the use of the Socratic Method – i.e. calling randomly on students, asking them to answer questions which in turn lead to more questions etc. This, however, is sometimes too demanding both for the professor and the students, especially if the number of students in the class is rather large. In such cases, a panel system could be used instead. Before each lesson, the professor selects a number of students to play a more active role in that specific lesson and present to the class the legal doctrines and cases that are to be discussed during that particular lesson. These students should also be prepared to answer questions addressed to them by the professor. The panel system is a sort of compromise between the Socratic Method and classic lecturing, keeping at least some of the students more active during class.

The Use of Power Point Presentations

Traditional in-class lectures will probably last forever. This is, after all, one of the most efficient ways to convey a vast amount of knowledge to numerous people in a short time. For many years lecturers have been writing materials on a chalkboard, whiteboard or transparencies, in order to emphasize certain points in their lecture. In recent years, however, the use of Power Point presentations has gained popularity as a substitute to

[80] William J. Lammers and John J. Murphy, *Profile of a US Public University A Profile of Teaching Techniques Used in the University Classroom : A Descriptive Profile of a US Public University, 3* ACTIVE LEARNING IN HIGHER EDUCATION 54 2002).

[81] Paul L. Caron & Rafael Gely, *Taking Back The Law School Classroom: Using Technology To Foster Active Student Learning*, JOURNAL OF LEGAL EDUCATION (54) (2004).

these old methods. Thus, projecting information directly from a computer onto a screen via a projector and power point slides allows the professor to structure her presentation, while providing the students with illustrations and live examples. Overall, research shows how helpful these types of presentations are. Research indicates that students prefer Power Point presentations to other kinds of presentations such as transparencies or a simple writing on the board.[82]

Using Power Point presentations in teaching has many advantages. IP law learning and training can gain significantly from the use of this tool. Invaluable is the ability to show students a vivid example of two trademarks and analyze their similarities, or to present two pictures and discuss whether it is only the idea that was copied from one to the other or also the expression. In fact, it is almost a must in the current IP analysis, where many of the legal doctrines are built on the concept of "you know it when you see it". It is difficult to talk about the idea/expression dichotomy without illustrating its application with vivid examples. Indeed, seeing is believing, or in this case, seeing is learning. But visualizing is only one aspect of the power point technology, and one might argue that transparencies can also do the trick. Listening to audio, however, is another advantage of Power Point presentations. The professor can play two songs – the original and the allegedly infringing, in order to explain how the infringement test should be conducted.

Power Point technology also allows the professor to circulate slides electronically. Some professors find it convenient and helpful to hand out an outline of the lecture's presentation, or deliver it to them via the class's website. This can be done before or after class.[83]

However, like every other tool, a Power Point presentation should be carefully used. Power Point slides should be meticulously and strategically crafted, for they can also generate many distractions that will drift students away from the learning process. One study, for example, found that the use of irrelevant graphics on slides impaired the students' performance on quizzes. Therefore, the contents of the slides should adhere to the educational purpose of the presentation.[84] Students have a slight preference for graphics (pictures, charts, graphs) over text. Hence, graphics used in the presentation should be relevant to, and enhance the meaning of, the text. Generally speaking, we strongly encourage the use of Power Point presentations in the process of teaching, while bearing in mind its drawbacks.

Using Audiovisual Materials in Class

The use of audiovisual materials in an IP class allows the students to see the subject matter of the cases rather than just read a verbal description of it. It also enables them to

---

[82] Robert A. Bartsch & Kristi M. Cobern, *Effectiveness of PowerPoint Presentations in Lectures,* 41 COMPUTERS & EDUCATION 77, 78 (2003).

[83] Each one of these practices (handouts distributed before or after class) has advantages and disadvantages. Thus, circulating the outline before class increases the amount of time spent during class on processing the content of the presentation, attempting to understand the material and listening to the lecturer's elaborations. The downside, however, is that it causes students to have, before class, insights which the professor would like them to have only in class.

[84] Jennifer M. Apperson, Eric L. Laws & James A. Scepansky, *An Assessment of Student Preferences for PowerPoint Presentation Structure in Undergraduate Courses*, COMPUTERS & EDUCATION (2006 (forthcoming).

apply the principles they read about to new, concrete examples.[85] Visual learners may have a difficulty with standard law-school teaching methods; therefore, audiovisual materials may be particularly helpful to them.[86]

Moreover, cases dealing with musical works, not to mention videos or clips, provide an insight into Copyright Law on a variety of issues, from the standards of originality and fixation, to fair use. The students can also compare audio versions of two different songs.[87] Some universities maintain websites dedicated to illustrate similarities and differences between songs and musical works in litigated cases. Those sites, which are open to the public, can be used by the professors while teaching in class.

Generally speaking, we encourage teachers and professors to use non-commercial, free, online databases that include resources, materials and examples of litigated cases. These can be used in class to assist implementing the basics of IP law. An example of such database is the Georgetown IP teaching resources database.[88] We also urge universities in countries in transition to develop their own databases with a unique set of examples to be shared among those who are teaching IP law.

Problems

The use of Power Point technology gives professors a great platform to show students many vivid examples in the process of teaching. Here we would like to discuss the use of such examples as problems to be solved, which will help to develop the student's legal and practical skills. The problems, which will be discussed in class at the end of each lecture, should be introduced after the general legal concepts have been presented. This will aid the students in recalling the legal doctrines, tying them to the new knowledge and learning how to practice the new materials.

The typical problem is usually a short case, not discussed in class before and based on a real or an imaginary fact pattern. The problem will require the students to implement the materials they have read for class. It should be assigned to the students before class so they will have time to think about it. Problems may also contain questions that serve as a review of previously learned material and check understanding of the material contained in previous Power Point slides. They may also be used to stimulate class discussion. Examples for such problems can be found in Table 5.

Guest Lecturers

It is very important to make students aware of how law firms and courts actually function - how cases are handled and how the work of the legal firm or the court is accomplished. Guest speakers can bring these real world elements, street wisdom and strategic behavior to the classroom in a way that law school professors often cannot. Some believe

---

[85] Rebecca Tushnet, *Sight, Sound, and Meaning: Teaching Intellectual Property with Audiovisual Materials,* 52 ST. LOUIS L.J. 891 (2008).

[86] M.H. Sam Jacobson, *A Primer on Learning Styles: Reaching Every Student,* 25 SEATTLE U. L. REV. 139, 151-152 (2001).

[87] K.J. Greene, *"There's No Business Like Show Business": Using Multimedia Materials to Teach Entertainment Law,* 52 ST. LOUIS. L.J. 765, 776 (2008).

[88] *See* https://www.law.georgetown.edu/system/login.cfm?rp=/IntellectualProperty/

that legal professionals or judges can convey the real legalities better than a professor who does not practice law. One of the advantages of bringing such a guest speaker is that his lecture can color the legal process in personal colors and bring to life cases previously discussed in class.[89]

Conclusion

Different teachers use different teaching methods. They do so based, first and foremost on their character, their audience's characteristics and the physical, economic and technological constraints of their institutions. Still today, most teachers use the lecture method. Sometimes they add to it slight variations such as role playing, panels, etc. As we have shown, in addition to these teaching methods, there is a wide variety of other teaching methods that could be used: these include writing projects, using videos, guest lectures, simulations and discussions. Teachers should continually strive to use diverse teaching methods such as these. By diversifying the ways to present material in the classroom, teachers are more likely to reach more students more often.[90] It makes the entire process of learning more interesting.

IP Seminars

The adoption of the seminar method provides a space that is much more amenable to students' participation as well as student-instructor and student-student interaction. Seminars can be used to encourage variety of legal thinking and to experiment in novel teaching method and assessments.[91]

Law school seminars can and should serve a pre-clinical or quasi-clinical function by offering training in thinking and writing about complex legal issues and contradictory values. The seminar should help law students learn how to work with uncertainties, conflicts of values and concurrent intellectual frustrations that pervade the practice of law and are critical for effective professional practice.[92]

A seminar can provide useful quasi-clinical legal education if three conditions are met:

1. The student must engage in a project that involves research, thinking and writing about a subject with complexities and contradictions that invite some sort of a solution.
2. An experienced faculty member must provide the student with helpful ideas, models to imitate and constructive feedback that will allow the student to develop his own “strategy” to deal with unique legal problems.
3. The faculty member must not impose his views on the student as the “right answer” but rather provide the student with the right tools to form an independent opinion.

There are a few basic steps a seminar teacher should follow while teaching a seminar: present a list of roughly defined potential research topics and emphasize the hope that students will individually choose topics of particular interest to them; provide a selected

[89] See for example Mark Lanier - Tort "War Stories" at http://www.youtube.com/watch?v=HifU89T8_Wo.

[90] Paul Bateman, *Toward Diversity in Teaching Methods in Law Schools: Five Suggestions from the Back Row*, 17 QUINNIPIAC L. REV. 397 (1997).

[91] Kirsten Anker, Catherine Dauvergne, Mark Findlay & Jenni Millbank, *Evaluating A Change To Seminar-Style Teaching*, LEGAL EDUCATION REVIEW 11(1) 104 (2004).

[92] Philip C. Kissam, *Seminar Papers,* 40 J. LEGAL EDUC. 341, 343-344 (1990).

bibliography of secondary literature on the seminar's subject; help the students to focus on a particular research question/project; require that the students submit a brief written statement that describes their topic, their particular focus, and their reasons for choosing this specific project.

Seminar Advantages and Disadvantages

A study conducted regarding the benefits of the seminar teaching method, found that the majority of instructors expressed the view that the seminar method offers advantages over the regular lecture format. The benefits include a more relaxed teaching environment offering more scope for personal interaction, questions and student contribution than regular lecture courses.[93] Another major benefit is the advantages of small group teaching.[94] Small group teaching conforms to contemporary educational theory: learning is best if it is an active, rather than a passive process. Teaching small groups promotes profound, rather than superficial learning. Whereas profound learning leads to a long term change, more advanced cognitive abilities and in-depth understanding, surface learning tends to be superficial and of short duration. Students of small groups have greater control of their learning activities, with a greater opportunity to self-direct their individual learning, as well as a tendency to develop the skills in self-reflection and self-discipline essential for lifelong learning. Group involvement also allows learners to check and clarify the accuracy of their understanding of concepts and applications, to test hypotheses, evaluate ideas and consider potential outcomes. Small group teaching also allows students a one on one time with their professor. This enables them to consult, ask questions, decide on a research topic and progress in their writing while receiving valuable comments from their professor. The seminar also helps them to develop searching skills, learn about new electronic databases and generally improve their research skills. In certain seminars at law schools, students will have to prepare a presentation which they will present to their fellow students and their professor. This will give them the opportunity to structure their thesis, while testing their ideas on their classmates. It will also allow them the opportunity to learn new technologies in preparation of the presentation, acquire experience in speaking in front of a group, answering questions, receiving important feedback etc.

Having said all that, learning in small groups has also several disadvantages. Some are practical but others are intrinsic. Enumerating the drawbacks, one can start with the costs. Teaching in small groups is much more expensive and oftentimes, as a consequence, institutions cannot afford having many small class sessions. Small groups typically require a greater investment or key resources such as staff and meeting rooms. The ratio between the professor and the students also raises the costs on such classes. Where for a given salary the professor could have taught 200 students a month, with small group classes he can only manage to teach 40. Thus, because of the enormous costs, teaching only in small groups will reduce the number or the variety of courses offered by the university. Therefore, the tradeoff might be to limit the number of seminars and teach the main load in bigger classes. Another practical problem is that many small group seminars should be taught by professionals rather than teachers from academia because of the

---

[93] *See* Anker, *supra* note 91, at 110.

[94] R. W. Jones, *Learning and Teaching in Small Groups: Characteristics, Benefits, Problems and Approaches*, 35 ANAESTH INTENSIVE CARE 587 (2007).

practical knowledge needed. In the area of intellectual property, skilled facilitators, especially in countries in transition, are often scarce.

On top of the practical problems some intrinsic problems should be mentioned - many students do not enjoy working in small groups (which requires a greater commitment) and prefer to learn individually or in large groups. Moreover, teaching narrow topics can be of limited interest to many students, which makes the general concept of the seminar less attractive.

The broad picture, however, seems to suggest that the transition to smaller seminar classes is desirable. By carefully choosing the right topics for a seminar the university can enhance the students' learning experience, while taking into account budget constraints. This will generally produce a balanced portfolio: a mixture of both small and big classes based on the students' general interests and the university's budgetary limitations.

IP Workshops

It remains a fact that IP law, like any other area of law, "is best taught and learned through a careful application of the lost art of reading".[95] IP workshops build on the latter. They require the students to read new frontier articles related to the workshop's topic. The students discuss these articles and criticize them. In this process they sharpen their legal abilities and enhance their IP knowledge.

A typical workshop will be supervised by one or two professors. Only a limited number of students (between 12 and 20) will be admitted. The professors will invite guest lectures – mainly professors from other universities but sometimes judges and professionals. Each guest will submit a work in progress paper which will be presented by him in class later. By carefully choosing these guests and crafting the workshop's program the professors can form an interesting coverage of the new developments in IP Law. By juxtaposing old paradigms with new ones the students can learn how IP law progresses. The professors can also expose the students to new technological developments that affect the creation of new IP rights and challenge the old ones. By inviting guests from abroad the professors can spice up the workshop with an international flavor, enhancing the student's knowledge while exposing them to new trends in different countries.

Before each presentation the students will carefully read these papers and write a short position paper. These position papers would be submitted and graded by the professors. They will help the students to form their opinion during the Guest's class presentation. The students can also write short reflection papers about the articles after the class discussion.

Although students may read parts of law review articles for various legal writing assignments, the reading is usually geared toward the objective of accomplishing the specific task of writing a paper or performing well on the exam.[96] In workshops, students will have the opportunity to consider the articles *per se* – not as a tool for achieving some

[95] Roberta Rosenthal Kwall, *Teaching an Intellectual Property Seminar Through the Legal Literature,* 52 ST. LOUIS. L. J. 813, 815 (2008).
[96] *Id.*

other academic benefit. In order to become skillful writers, students need to be careful readers of these articles.[97]

This process will do more than just enrich the students' knowledge. Careful preparations by both the supervising professors and the students will help the guest-speakers to improve their work in progress paper and turn them into better articles. This would provide guests an incentive to attend these workshops free of charge. Teaching this kind of seminars affords professors, students and their guests, the luxury of variety and a deep intellectual engagement.[98]

Clinical Education of IP

Several universities bring law studies to life by allowing students to apply their knowledge to real cases. Experienced faculty members, most of who have practiced in their field of expertise prior to teaching, supervise the clinical programs. All clinics include a classroom component, but their primary focus is on providing the students a real-life experience. Through the process of clinical education students can gain basic knowhow on legal research, legal analysis, litigation and counseling.

Students in clinics should be responsible for handling an actual legal matter for a real client. In the United States, for example, this is possible because most states have a "student practice rule" permitting students who are supervised by law school faculty to practice law.[99] In the IP area such a legal matter can take several forms: advising clients on how to protect their work and manage their IP assets; if and when to file an infringement suit, litigate an infringement suit etc. The clinics can also take other directions, such as conducting studies for the government, drafting model statutes etc.
Schools can choose from a variety of ways to organize the legal work of their clinics. The goals of a clinic should be the following:[100]

- Client centered lawyering
- Theory driven advocacy
- Professional and responsible legal work
- Fact investigation
- Persuasive advocacy
- Strategic planning and problem solving
- Critical analysis of the justice system
- Reflective practice

Two examples for legal clinics that apply these principles to IP law can be found in the *"Glushko-Samuelson Intellectual Property Law Clinic"* which takes place at the

[97] *See Id,* at 815.
[98] *See Id.*
[99] Elliott S. Milstein, *Clinical Legal Education in the United States: In House Clinics, Externships, and Simulations,* 51 J. LEGAL EDUC. 375, 376 (2001).
[100] *See Id,* at 378.

Washington College of Law[101] and the *"Intellectual Property and Technology Law Clinic"* that takes place at University of Southern California.[102]
Clinical education can integrate several components:[103]

1. A seminar consisting of a yearlong simulation that addresses multiple lawyering skills and legal practice settings;
2. A wide variety of opportunities for clients' representation performed by students under close faculty members' supervision;
3. Weekly discussions focusing on issues of public interest experienced by the students during their representations.

As regarding to the clients of the clinic, it is recommended to strive for a mixture of clients- from struggling artists and inventors to large nonprofit organizations with long term investment in the IP policy process - as well as a mixture of issues which reflect the full range of IP lawyering practices.

Through the hands-on experience of representing clients in various forums, students obtain professional responsibility; counseling and advocacy skills; research skills; knowledge of substantive law and procedural rules related to their projects. They also develop more general skills related to professionalism, work-flow management and teamwork.

The Class Component

The goal of the classroom component is of course inextricably linked to the overall goals of the program. Many clinics today involve large groups of students. The challenge for the clinic supervisor and instructor is to figure out a way to engage these large groups of students in the classroom. To do that, there are several recommended techniques and the choice depends on the size of the group and the goals of the class:[104]

1. **Panel discussions**: Assembling a panel of speakers on a topic is often a useful mean for bringing the "real world" into the classroom discussion and giving the students an opportunity to hear a range of views on a particular topic.[105]
2. **Guest presentations:** If the clinic is large (but not too large) inviting one guest speaker rather than a panel may work better. With a group of around 20 students it is possible to have something in the nature of a discussion with an individual guest, and this might be more effective on certain topics. Although a lecture by an individual guest presenter is not very different from a lecture by a faculty member, some of the advantages discussed above still pertain. The students may be more alert and focused merely due to the presence of a visitor or a practicing lawyer.[106]
3. **Students' presentations:** students spend a great deal of time in small groups outside the classroom, discussing their cases and various practical issues that arise from their experience in their clinic work. Many of these discussions do not directly involve the teacher or a supervising attorney and yet may be a valuable aspect of the learning

---

[101] *See* http://www.wcl.american.edu/ipclinic/ .
[102] *See* http://lawweb.usc.edu/why/academics/clinics/iptl/
[103] *See* Farley, *supra* note 30.
[104] Mary Jo Eyster, *Designing and Teaching the Large Externship Clinic*, 5 CLINICAL L. REV. 347, 374-382 (1999).
[105] *See Id,* at 385-387
[106] *See Id,* at 385-387

experience. Such informal group discussions give the students an opportunity to explore topics of concern in a low-pressure context, without being concerned about how their views might affect their grade or evaluation.[107]

4. **Journal entries:** the clinic's teacher must devise a structure that will allow her to receive sufficient feedback to evaluate the student's learning. Some programs, for example, require the students to keep journals in which they both record their assignments and reflect on what they have learned from their work. The journal can be used for several goals: for the students, the process of writing about their field work helps them focus on their work as a learning experience. The journal allows the clinic teacher to review the student's analysis of how the particular task advanced her learning agenda. Another good use one can make of the journals is to provide material for discussions in class meetings. However, it is important that the use of the student's journal will not breach the confidentiality that the student rightfully expects.[108]
   Examples for other IP clinics could be found on:

1. http://www.law.upenn.edu/blogs/news/archives/2011/03/penn_law_ip_and_technology_legal_clinic.html
2. http://law.unh.edu/clinics/ip.php
3. http://www.wcl.american.edu/ipclinic/

Teaching and Technology

With the acceleration in the globalization process, IP has been recognized as a trade related issue. With the adoption of the TRIPS agreement, the role of IP in development has increased. Moreover, the increasing prominence of IP on the national and international scene has also had an important impact on the way IP is taught and on the content being taught.[109]
The law is changing in many areas, especially in IP. So much, that textbooks often become out of date soon after their publication. There are many pedagogical advantages to using current resource materials to supplement teaching. Requiring students to use the internet to research current events not only teaches and reinforces necessary research skills, but also allows them ready access to the most up to date material.[110]
From the professor's perspective, when preparing teaching materials, those used by other lecturers could be a great starting point. Today, enormous amounts of information and teaching materials are available online: in addition to the WIPO website itself, there are many other websites that offer information and materials.[111]

Online Teaching of IP

The ongoing development of the internet as a major technological infrastructure and the increasing popularity of broad band access allow universities and other institutions to use

[107] *See Id,*. at 385-387
[108] *See Id,* at 385-387.
[109] *See* Allman, *supra* note 25, at 2.
[110] Andrea L. Johnson, *Distance Learning and Technology in Legal Education: A 21st Century Experiment*, 7 ALB. L.J. SCI. & TECH. 213, 222 (1997).
[111] For a broader discussion regarding materials and resources, see *supra* - on "Resources and Skills".

the internet as a platform for online courses and distant learning. Where in the past, heavy traffic and limited resources enabled only limited access to distant websites, especially to individuals using their home computers, today, broadband access is becoming the norm in more and more countries, and video and audio streaming is often used for various purposes. This allows to "transmit" and to "receive" lectures online. Educational technology encompasses any means of communicating with students other than through direct, face to face, personal contact.[112] Online learning refers to computer-mediated, web-based learning environment.

Technology which enables distant learning can be of a great advantage to the learning process in general and IP learning in particular. It can be used as a complimentary technology for the orthodox pedagogies but also as a substitute for in class teaching. This promising method has many advantages in developed countries but even more so in countries in transition. The list of online courses' advantages is very long and I will not be able to touch upon all of them. Therefore, I will limit myself only to the important ones, enumerating some of the major advantages.

The fact that students don't have to be on campus is a great advantage to working students, who could follow some of the courses from their home or office computers. Often times, when online classes can be deferred, it also allows the students a time shifting (i.e. – allows them to take the class at their convenience, during off-work hours). The student's presence on campus, important as it may be, has another, even more important, drawback, which distant learning does not have - the need for the professors to be on campus as well. This teaching method is important, especially for countries in transition, because it allows bringing IP curriculum courses from other institutions and other countries, which are taught by leading IP professors. Thus, even a small university with a limited budget and only few IP professors could offer its students a vast portfolio of IP courses.

There are many different ways to use technology[113] and various levels on which it can be employed:[114] *On the basic level***,** some universities and organizations could use technology to provide access to course documentation (such as a course syllabus, class lists etc.) and varying teaching materials (readings, cases, and etc.). A further step still on this level might be to provide lectures through audio or video recordings.[115] *The intermediate level* involves more complexity and sophistication and uses technology, primarily the internet, to provide communication tools which allow students to raise their concerns and maybe engage in a discussion which relates to subject matters and learning activities.[116] *On an even higher level***,** teachers will use technology to deal with every aspect of administration and delivery of the course. It is possible to use technology as a primary mean for engaging students from enrolment to completion of the program, including every aspect of learning and assessment.[117]

---

[112] A.W. (TONY) BATES & GART POOLE, EFFECTIVE TEACHING WITH TECHNOLOGY IN HIGHER EDUCATION 5 (2003).

[113] See Table 3 – Educational Technologies by Type.

[114] Philip Griffith, *Using the New Technologies in Teaching Intellectual Property (Distance Learning), in* TEACHING OF INTELLECTUAL PROPERTY: PRINCIPLES AND METHODS 268-269 (Yo Takagi et al. eds. 2008).

[115] *See id.*

[116] *See id.*

[117] *See id.*

The online learning experience can be divided into two groups. In the first group of online courses, there is no need for human intervention in the sense that the entire process is run and administered by software. An example of the first group is an online course that teaches students the process of filing a patent in a certain country, through charts, illustrations, written slides and short video clips, and eventually tests them on the material via multiple choice questions quizzes. These types of lessons can be taken on the students own time and so can the exam. They mainly serve the purpose of pure transfer of knowledge, primarily technical. Universities in countries in transition can use this type of courses to enhance their students' knowledge, for example, with regard to the foreign aspects of filing a patent. The second group of online courses requires human intervention and to some extent simulates a regular class. The professor can be in his office, anywhere on the globe, while the students log onto their home computers at a certain pre-scheduled time. The professor's lecture is "broadcasted" "live" and the students can ask him questions. They can do it either vocally or post their questions online, which then appears on everyone's computers and can be addressed by the professor during his presentation. At the end of each lecture the professor will assign his students, online, reading material for the next class. Those who could not take the class "live" can later watch its recoded version online. They will not, however, be able to bring-up any question during the presentation. They can, of course, later address the professor via mail and ask for clarifications if needed.

The students who participate in these online sessions will often be asked to submit a paper electronically. These papers will be graded by the professor or his teaching assistants. A session of 13 presentations (each lasting 1.5 hours) can cover a topic and be considered a 2 credits course. By the end of the course, as in every traditional course, the students will have to take an exam. They can take it online, but if this option is too complicated, technology wise, they can also take an in-class exam.[118] The exam can be mailed to the university by the professor, printed by the university staff and then circulated amongst the students who will take it in the classroom. The students' answers can then be scanned and sent directly to the professor to grade.

In order for the online system to work properly, several issues should be addressed and the students must be well aware of several technical matters regarding their online course. Thus, they should know what computer and software setup is needed in order to enroll for class; what are the technical requirements regarding the internet connection; whether they are required to log in at a specific time; etc. Administrative issues should also be cleared in advance, like in any other regular class. Contact methods with the

[118] Submitting a paper or an exam via the internet can be rather tricky. It will sometimes occur that a student will claim to have written an assignment and submitted it online but the teacher is unable to find it in the drop box. In such a case a teacher can, for example, request the student to submit a backup file as an attachment to an email either immediately or within a reasonable period of time, and the work can be accepted either with or without penalty, depending on the circumstances. Moreover, sometimes a student may try to use technological difficulties to his or her advantage, complaining that "the computer crashed" while undertaking or handing-in a task. One possible way to deal with this type of problem is to use a software that tracks time, duration and number of attempts that a student accesses a task (See Melissa R. Olt*, Ethics and Distance Education: Strategies for Minimizing Academic Dishonesty in Online Assessment*, (5)(3) ONLINE JOURNAL OF DISTANCE LEARNING ADMINISTRATION (2002).) Another difficulty that comes to mind is the instructor's inability to make sure who has actually taken an online assignment. This can be overcome to some extent by the use of technological means such as individual usernames and passwords, biometric fingerprints etc.

course's teacher should be provided. The course's outline and schedule should be posted online or sent to the students via mail. It should contain the workload expectations, the activity requirements and the dates for submitting papers and exams. Students should also know in advance whether textbooks are needed, whether they can get them online (in a physical copy or an electronic-version) or whether they can buy them upfront at the store or have them shipped.

An online course can be supplemented by online discussion forums. An online discussion forum is an area of a web site where a group of students together with the course instructor can discuss a particular topic or a group of topics regarding a common theme. Discussion forums can be synchronous- that is – everyone participates and are online at the same time, or asynchronous, where students log on at different times and post questions and messages relevant to the discussion. It is highly recommended that students have such an open area where they can discuss a range of issues - which can be non-moderated or lightly moderated by the instructor.[119]

It should be noted, however, that although some institutions may largely depend on online courses, these courses will often be only a supplement to the main classic courses curriculum. Another option is not to separate classic courses from online courses but to combine these methods together to teach one subject matter as a whole. A nice illustration for this is the online course conducted by David I. C. Thomson.[120] Thomson has developed five different online modalities to deliver the course's content: seven online PowerPoint presentations with audio-voice over, three online exercises, two asynchronous discussion forums, two individual telephone calls with each student and four live classes where everyone is online at the same time. Whenever he felt that it is paramount for him to be with the students in the same room at the same time, Thomson used a chat module with a capability to write on a "white board" that all students can see.[121]

Examples for Online IP courses – see Table 4

Also see : An online L.L.M in intellectual property - The University of Edinburgh, School of Law: http://www.law.ed.ac.uk/ahrc/teaching/llm/information/distancelearning/

Student Exchange Programs

One of the goals of student exchange programs is to help improve the lives of people in developing countries through technical assistance, educational cooperation programs, or international service learning. Exchange programs that sent U.S scholars and students abroad have assisted developing countries in areas such as health, the environment and agriculture. Research in these and other areas has enabled institutions of higher education around the world to forge partnerships and strengthen collaborative efforts with

[119] *See* Bates & Poole, *supra* note 114, at 217.
[120] David Thomson, *Effective methods for teaching legal writing online* 10 (2008),*(available at*: http://ssrn.com/abstract=1159467(2008).
[121] To see how this works, try the demo- http://www.brainshark.com/blackboardinc/vu?pi=zGDzYO2yDz35Sgz0 (last visited on July 12th, 2011).

each other.[122] In the IP area in particular, developed countries could form exchange programs with countries in transition and invite students from those countries, to help them acquire professional knowledge and learning skills about intellectual property.

There is a need for a solution for students who, for economic or other reasons cannot participate in long term students' exchanges. Those students should be afforded alternative opportunities to participate in significant cross-cultural experiences as part of their academic program.

The internet can be used as an appropriate technology to support carefully planned and closely monitored dual-site academic exchange assignments.[123] One possible solution is the development of carefully structured and closely monitored virtual exchanges that are supported by the internet and which bring students almost face to face with their peers.

POLICY RECOMMENDATIONS

Recommendations in the field of WIPO tool formation policy for intellectual property teaching in countries in transition

Recommendations will be given on the following issues:
(1) Program content,
(2) Forms of implementation and teaching methods,
(3) Teaching aids necessary for the courses,
(4) Instructors,
(5) Cooperation policy for the creation of WIPO instruments for intellectual property teaching in countries in transition.

Recommendations relating to program content

Recommendations relating to program content take into account the necessity of tailoring and implementing programs for following audiences:

(1) Audiences of *all* categories, including state office employees,
(2) The officials of the state bodies sufficiently involved in *innovative* processes,
(3) The heads of companies and entities of different levels, where the objects of intellectual property could be created and profited from.

Recommendations relating to program content for heads of companies and officials of separate state bodies take into account the different levels of course participants:
(1) Level of a leader who makes strategic decisions,
(2) Level of subdivision/department head that is busy with the issues of intellectual property,
(3) Level of company employee who is responsible for the issues of intellectual property.

---

[122] Patience A. Sowa*, How Valuable Are Student Exchange Programs?,* 117 NEW DIRECTIONS FOR HIGHER EDUCATION 63 (2002).
[123] Charles Elerick, *Creating Opportunities for Cross-Cultural Communication Through Internet-Supported Student "Exchange" Programs, available at* http://www.uri.edu/iaics/content/1998v8n2/09%20Charles%20Elerick.pdf .

In non-specialized programs for **all** audiences, including state office employees, the content of teaching course must:

(1) Show the importance of industrial property for development of national economy;

(2) Give an idea of the place of industrial property legislation in the national legislation system; in particular the information indicating that in many jurisdictions the legislative regulation of relations connected with the patent right objects - and individualization - is implemented by means of special intellectual property legislation, while in others it is implemented by civil legislation, but relations connected with know-how is regulated by competition law; the importance of court practice must be shown as well.

(3) Acquaint course participants with the system of international agreements/treaties in the field of industrial property, their importance for legislative regulation, including short descriptions of such agreements/treaties as the Paris Convention for the Protection of Industrial Property, the Madrid Agreement Concerning the International Registration of Brands, the Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods, the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration, The Hague Agreement Concerning the International Registration of Industrial Designs, the International Convention for the Protection of New Varieties of Plants, the Patent Cooperation Treaty, the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, the Nairobi Treaty on the Protection of the Olympic Symbol, the Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Brands, the Vienna Agreement Establishing an International Classification of the Figurative Elements of Brands, the Locarno Agreement Establishing an International Classification for Industrial Designs, the Strasbourg Agreement Concerning the International Patent Classification, the Trademark Law Treaty, the Singapore Treaty on the Law of Trademarks, the Patent Law Treaty, Trade-Related Aspects of Intellectual Property Rights agreement, and the Convention establishing the World Intellectual Property Organization;

(4) Acquaint course participants with various industrial property objects, their legal regime, order and conditions to provide legal defense for these objects, ordinary and exclusive conditions of their use;

(5) Describe a system of national state bodies dealing with industrial property issues;

(6) Give information on the inclusion of the wordings of legislation on industrial property on the websites of a national patent office and WIPO, and that the WIPO website also contains the wordings of legislation acts about industrial property from other countries and point out that these texts can be obtained through free access;

(7) Draw attention of the course participants to the fact that a special attention is paid today to the exploitation of industrial property in small and medium companies, and describe the methods of intellectual property commercialization;

In the programs for the officials of bodies substantially involved in ***innovative*** processes, attention must be paid to the necessity of taking into account social & economic factors and the availability of different legal systems. Special attention, through studying patent law, must be paid to the issue of withdrawals/impingements and limitations.

In particular, when speaking about withdrawal/impingement, several reasons must be mentioned: first of all it must be defined: What is the essence/substance of an invention? National legislation in different countries answers this question in different ways. As a rule withdrawals are taken as a basis for such definition. There is a lack of “positive” definitions. Let us take a novelty withdrawal clause – in the 1960s for instance it was impossible to

define a novelty in computer software because there was nothing to compare with it. Some countries took the position that the best way is to withdraw the issue from defense coverage. Certain withdrawals emerged because of the fact that the relevant results could be defended as other intellectual property objects (for example, copyright objects, and outstanding achievements of selection). There are some withdrawals which show the cost (financial expenditures), or are imposed because there was no need for defense, or are connected with high demand for funds (social expenditures prevail); some withdrawals are stipulated by moral principles of society. Certain inventions (in specific directions) could get promotion from society under no circumstances. Patents do not exist out of touch with other ethical values of society. Let us take for example methods of medical treatment. Physicians must treat the patients in such a way as they consider best, without reflecting upon the necessity of license procurement.

There could be 3 reasons for limitations:

(1) Cost basis. The patents could have a certain social impact (for example, they could limit some scientific research). The patents are created for their use for particular purposes. But the system must work as an integrated entity.

(2) Some limitations are necessary to provide successful operation of the entire patent system, for example, to conduct some experiments.

(3) Limitations which take into account some other interests (freedom of trade, competition, logistics, training etc.).

Certain withdrawals and limitations do exist simultaneously. The reasons for introduction of eliminations: (1) unambiguous and absolute understanding of what the patents can not be issued for, so that the interested persons need not be concerned about the appearance of exclusive rights with all the ensuing consequences; (2) the patent office need also not be concerned about the decisions to be taken.

Limitation risks: (1) the user could find himself infringed by patent litigations; (2) many jurisdictions do have their own elimination interpretations, sometimes with very close limits; (3) the limitations could be bypassed depending on the situation, provided that the invention was made in the context of a private order; (4) defense withdrawals are always categorically expressed; and limitations could be applied in different ways; (5) withdrawals must be completely understandable; they must not allow any ambiguous interpretation. But they are not always understandable for the user; so sometimes the patent claim/definition of the invention (and its description) are formulated in such a way that the reader can not understand what field it is applied to. The patent office can not follow such situations every time because it does not have specialists for each particular case or does not have them in sufficient numbers; sometimes it is easier to let a patent be issued, without discovering any reason for withdrawals; (6) sometimes it is rather difficult to define whether there is an invention or a patent, a computer software or not. The operation of withdrawal system depends on the quality of operation of the patent office.

Programs for the heads of companies and organizations of different levels, where intellectual property objects can be created and exploited, must take into account the following matters:

- The level of the head/manager who takes strategical decisions – the program or teaching course must give an idea of the place of each state body in the entire intellectual property system, the competence of which includes the issues of intellectual property (for example, customs control, suppression of unfair competition, prevention and suppression

of administrative, civil & legal and criminal delinquencies, providing legal defense for the industrial property objects, selection achievements, drugs etc.), of the competences of such bodies, of possible common activity directions, of a strategy of intellectual property management on the level of enterprises and organizations, of the main directions of commercialization of intellectual property objects, of international cooperation in the field of intellectual property, of skills to conduct business negotiations with partners in the event of transfer of rights to the intellectual property objects;

- The level of the subdivision/department manager who is concerned with the issues of intellectual property - the program or teaching course must give an idea of the competence of the enterprise and organization relating to legal defense and protection of intellectual property objects, of specific daily tasks of the subdivision/department in connection with its competences, of the set of legislative acts regulating the issues of legal defense and protection of industrial property objects, of intellectual property management on the level of companies and organizations, of main directions of commercialization of intellectual property objects, of the licensing activities of the enterprise, and finally of the valuation of the commercial potential of intellectual property objects;
- The level of the subdivision/department employee who is concerned with the issues of intellectual property - the program or teaching course (depending on the specialization) must give an idea of how to conduct patent-information research, patent examining operations, orders and conditions for the providing legal defense and protection for industrial property objects (procedures, requirements), of the valuation of intellectual property; and of the accounting procedures for intellectual property as intangible assets, etc.

The special feature of these programs in contrast to preceding ones is the shift in emphasis from the legal issues of defense and protection of intellectual property to the issues of commercialization and valuation of intellectual property objects, including licensing relations.

In this case the program proposes a more detailed analysis of the following issues: (1) economic matters of licensing, including the choice of licensing payment form, calculation of licensing payments, the advantages and disadvantages of various licensing payment forms for a licensor and licensee, the economic aspects of compulsory/mandatory licensing; (2) economic advantages of this commercialization mechanism, compared with other methods of exploitation of intellectual property objects, i.e. a transfer of exclusive rights under an alienation agreement; license contract terms and conditions, directly dealing with the economic part of the transaction, such as the limitations relating to a “bought back capacity"; marketing and price policy of both parties; (3) compulsory licensing problems.

The cost valuation of the results of the intellectual activities in the companies to be defended could be shown in a general outline.

For the audiences from economic departments and services dealing with the issues of intellectual property the following **separate specialized programs** must be tailored: ***“Patent-information research”, “Patent examining operation”, “Valuation of intellectual property objects”, “Economics and management of intellectual property”, “Accounting of intellectual property***” and others, which must draw the attention of audiences to the following issues:

(1) Understanding of the importance of R & D for the creation of innovative and competitive products;

(2) Understanding of the necessity to regulate the sphere of intellectual product creation from the state side;
(3) Understanding of the basis of patent engineer activities, methods for conducting patent-information research, the basics of patent examining operations;
(4) Understanding of the importance of intellectual property in the development of business and of the national economy;
(5) Understanding of the essence of intellectual property as corporate assets;
(6) Formation of the audience's understanding of the economics of intellectual property as a basis for the business activities of companies;
(7) Understanding of the necessity to establish an integrated management system of intellectual property in companies (corporations);
(8) The intellectual property capitalization stages of high-tech businesses;
(9) Valuation procedures for intellectual property objects, approaches and methods for their cost valuation, national and international valuation standards of intellectual property objects;
(10) Exploitation of rights relating to intellectual property objects as intangible assets, accounting of intangible assets in accordance with national and international standards.

Recommendations relating to the implementation of teaching programs and teaching methods

The implementation of teaching programs could be as follows: further/advanced training courses (medium-term and short-term courses), occupational retraining courses (1 – 2 years), seminars/workshops and conferences.

The classes could be conducted both in educational institutions and at companies in the morning and in the evening.

In practice, the teaching programs lasting over a long period of time for the heads/CEO, including high-ranking state office employees, are not so effective. They cannot leave the office for a long time, and even if it is possible, they cannot immerse themselves in the teaching process deeply enough. For middle-level bosses and executive officers, the detailed in-depth-programs are the most effective ones. The analysis of the questionnaire forms has shown that in the respondents' countries the short-term programs are more popular, but experience in Russia indicates that the long-term teaching programs (for 1 – 2 years) are giving more skills to the specialists involved - both in legal and economic processes in the field of intellectual property.

In some cases the most adequate form for teaching separate subjects is long-distance teaching.

Teaching technique is the whole set of teaching methods on the subject of analysis and compiling of particular documents, and the solution of practical tasks. One of the most effective forms of teaching contributing to the development of self-sufficiency in decision-making by the audience, creative thinking, systematization of all theoretical knowledge and acquisition of practical skills, is the active teaching method, including both non-imitation and imitation forms. Lectures and seminars belong to the non-imitation form. The specific feature of an active teaching method is maximum involvement of the audience in a learning process, which was the reason why lectures in form of conferences, which provide an interactive participation of the audience during a lecture, have become very

widespread. Within special scheduled breaks during a lecture, the audience asks questions on the subject of this lecture and the teacher replies to these questions within a specific time after or during a lecture. Very interesting for the audience is a lecture with analysis of particular market cases, for example analysis of a very real market situation where the instructor presents and analyses a new teaching topic using a practical case. To check and control the mastery of studied material, seminars in the form of thematic workshops are one of the frequently used means. The audience there is invited to prepare by itself some practical cases to substantiate the materials studied. There is great potential in interdisciplinary seminar forms, because during these seminars the audience has a possibility to systematize its knowledge on the various subjects of the course.

The teaching objective of any course must consist in the following: mastering of theoretical basis as well as acquisition of practical skills with the help of active teaching methods.

This task is to be realized by carrying out the following missions:

- Application of active teaching methods aiming at the highest possible involvement of the audience in learning process;
- Examination and analysis of practical problem situations connected with the solution of practical tasks during a process of mastering and consolidation of knowledge;
- Involvement of the audience in educational and research activities for the purpose of increasing the efficiency of teaching;
- Arrangement of activities for self-appraisal of the process and results of the participant's own activity to solve a particular case, which is to be as close as possible to real conditions;
- The highest practical orientation in the study of a particular branch of learning based on the use of cases from national and international practice;
- Continuous verification of the completeness of the audience's knowledge, recording and valuation of results by way of final tests, exams, writing of course/yearly essays.

For example, during a teaching process on the subject "License Trade" the most important tools are active teaching methods, namely business games. Business games are based on simulation of problem situations in various human activity fields, which allow for the finding of optimal ways to solve these problems, as well as on algorithms, which help to forecast similar situations and to avoid them successfully. Owing to the fact that the course audience represents state office employees or entrepreneurs with a certain amount of experience in various fields and branches, the study of theoretical aspects using practical cases taken from real life is for them of very great importance.

In the Russian Federation the Russian State Academy of Intellectual Property (RSAIP) is the basic organization dealing with the training of specialists in the field of intellectual property. The uniqueness of the Academy consists in the fact that it is the sole educational institution in Russia dealing with systematic training of specialists in the field of legal defense, commercialization and management of intellectual property. This systematic approach means multistage and multilevel training of specialists in the field of intellectual property; the first stage is basic higher education and then periodical further/advanced training with the help of seminars, short-term courses, etc. There also exists occupational retraining of specialists. In addition to that there is another stage – the

training of scientific-educational personnel in the field of intellectual property conducted under the programs of postgraduate vocational education (postgraduate courses, institution of doctoral candidacy).

Program topics for various audience categories, including state office employees, include the following: Civil-legal defense of intellectual property objects; Introduction of intellectual property objects in civil turnover; International trade and intellectual property (macro- and microeconomics of IP); Taxation of intellectual property; Basics of patent-examining operations; Special features of the legal defense of intellectual property in connection with IT development; Patenting in foreign countries; The legal basics of innovative activities; The practice of defending individualization in Russia and in foreign countries; Problems of intellectual piracy in Russia; Means of defending intellectual property rights; Comparative legal analysis of Russian and foreign law enforcement practice; Economics and management of IP.

Recommendations relating to the teaching aids

In the capacity of such teaching aids, various materials, both on paper and electronic media, can be used. There is demand for textbooks, teaching-methodological handbooks, and workbooks for the audience/participants. The application of slides is also very effective. During teaching hours dedicated to study of illegal activity and the indications relating to the objects under defense, special attention is paid to specimens of counterfeit products.

Practical training can include use of “playing” versions (for game purposes) of applications for inventions, trademarks, etc., license contracts, agreements between employee and employer.

The teaching programs, which are carried out in the RSAIP, are based on the results of scientific research conducted in the Academy. The teaching programs for all audiences are accompanied by textbooks, teaching and methodological handbooks and scientific literature, which are also based on the results of the scientific activities of teachers. To these teaching aids belong in particular the following: (1) Recommendations for improving the efficiency of protection of intellectual property rights by Customs bodies; (2) Methodological recommendations for the application of the Fourth part of the Civil Code of the Russian Federation; (3) Scientific & methodological recommendations for the determination of intellectual continuity of intellectual activity results and intellectual property objects.

Instructors

As instructors both teachers of institutes of higher education and practicing specialists can be invited (officials of the Patent Office, Antimonopoly body, Customs body, Police, patent engineers, valuers, experts). Moreover it is necessary to emphasize that it is very important that the teachers can combine their teaching and practical activities in the field of intellectual property. There is no doubt that such practical activities can enrich the teachers with invaluable knowledge, which they can use by teaching both the state office

employees and the audiences of other categories. The practical examples could be used both for lectures and for practical training. They could be used for the tailoring of situational tasks; the teacher can give the course participants advice for the best settlement or solution.

Cooperation policy for realization of WIPO tool for intellectual property teaching in countries in transition

The countries implementing the WIPO instrument for intellectual property teaching must follow the cooperation policy in the education field with the help of the following factors:
- Mutual assistance in the tailoring of teaching programs, teaching aids, practical training sessions;
- Mutual assistance in the development of teaching forms and methods;
- Teacher exchange;
- Trainee field-work to study the experience of specialist teaching in the field of intellectual property;
- Exchange of documents and teaching aids;
- Joint methodological and scientific-practical seminars on currently relevant subjects, including:
(1) Techniques to instruct the audience in branches in the fields of law, economics and management relating to intellectual property;
(2) Use of software during the teaching process;
(3) Formation of occupational skills for specialists in the field of intellectual property, etc.

PROPOSALS FOR FURTHER RESEARCH DEALING WITH TAILORING OF THE WIPO TOOL FOR INTELLECTUAL PROPERTY TEACHING IN COUNTRIES IN TRANSITION

For the purpose of tailoring curriculums (teaching schedules), programs and innovative techniques for intellectual property teaching in countries with transition economy, the practical experience of intellectual property teaching in these countries must become a subject for in-depth additional research on the basis of the following information:

1. Names of state bodies dealing with the issues of intellectual property (the relevant information has not yet been provided by all countries).
2. Names of educational institutions specializing in the field of intellectual property and their websites (the relevant information has not yet been provided by all countries).
3. Names of state bodies, where officials are taught under the programs in the field of intellectual property (the relevant information is yet provided not by all countries).
4. Availability of different levels of occupational training in the field of intellectual property (objectives of such training).
5. Availability of teaching programs in the field of intellectual property, not only for state office employees, but also for students of higher education institutes, employees of various companies and organizations; description of these programs (main directions, short summary of their substance, key topics, duration, teaching methods and forms). Highlighting of strong and weak features of these teaching programs (valuation from the side of representatives of the countries to be analyzed).
6. Availability of different levels of occupational training in the field of intellectual property.
7. Availability of teaching programs for the occupational training of teaching staff; description of these programs (main directions, short summary of their substance, key topics, duration, teaching methods and forms). Highlighting of strong and weak features

of these teaching programs (valuation from the side of representatives of the countries to be analyzed).

Table 1 – Survey, Specialty, Advanced and Practice Courses in IP Law, as Offered by Various American & British Universities

Classification	Name	Description	Law School
Survey	**Intellectual Property: An Introduction**	This course will offer a comprehensive doctrinal and theoretical introduction to federal trademark, copyright, and patent law and to related state doctrines of unfair competition, trade secrets, common law copyright, and the right of publicity.	Yale Law School[124]
Survey	**Intellectual Property Law**	This course will provide students with an introduction to the law relating to patents, trademarks and copyright, and to the factors responsible for the continuing rapid expansion of each of these regimes of rights. We will reflect upon the variety of economic, cultural, political and technological pressures for the reform of Intellectual Property Law, and upon the processes by which these become translated into legal initiatives. And we will evaluate critically the implications for economic activity and social life generally of recognizing intellectual property rights.	London School of Economics – Department of Law[125]
Survey	**Intellectual Property**	The course starts with a general look at intellectual property law and the justifications for protecting this type of property, highlighting its differences from other forms of property. Specific types of intellectual property are then examined: copyright, database rights, design rights, patents, trade marks, passing off and confidential information. The course concludes by looking at the relationship between intellectual property rights and EU competition law and the law on free movement of goods. The focus of the teaching is on the substantive law, but issues of current debate will also be considered, e.g. the legal protection of software, the development of a 'privacy' right, and the use of trade marks on the internet.	University of Glasgow – School of Law[126]

[124] *See* http://ylsinfo.law.yale.edu/wsw/prereg/CourseDetails.asp?cClschedid=109619.
[125] *See* http://www.lse.ac.uk/collections/law/programmes/llb/LLB%20Options%202011-12.pdf, at 36.
[126] http://www.gla.ac.uk/schools/law/undergraduate/undergraduatecourses/thirdandfourthyearcourses

Survey (wide-scope)	**Intellectual Property Law Core**	This course is an intensive study of the core subjects of intellectual property law: patents, copyrights, trade secrets, and trademarks. It examines the fundamental principles of these bodies of law, their underlying policies, and how the laws inter-relate. It is intended for J.D. students who are or may pursue the IP Law concentration track, students who intend to practice IP law, and IP LL.M. students.	University of Washington – School of Law[127]
Specialty	**Patent Law**	The basic questions in patent law are: why should society permit the grant of an exclusive property right in information relating to an invention? Who should be given the right? What is the scope of the right? How should the right be enforced? What disclosure duties should be placed on the patent holder? We will concentrate on these legal issues without getting mired in discussions of the technical details of particular inventions. Students without a technical background are welcome and encouraged to enroll.	Boston University – School of Law[128]
Specialty	**Unfair Competition and Trademark Law**	This course will examine the precepts of trademark and unfair competition law. We will investigate issues of ownership, protectability, misappropriation, and infringement in the context of words, symbols, slogans, product design and trade dress. The course also will handle related issues, depending on class interest, such as: trademark's common law roots, false and comparative advertising, parody, the right of publicity, the First Amendment, a comparison of how copyright and trademark treat 'functional' designs, and the question of whether trademarks are, or should be, "property."	Boston University – School of Law[129]
Specialty	**Copyright Law**	This course will begin with a discussion of the purposes of copyright law, will proceed to investigate the subject matter of copyright protection, criteria that works must meet to be eligible, who owns	UC Berkeley School of Law[130]

[127] http://www.law.washington.edu/CourseCatalog/Course.aspx?YR=2011&ID=P501
[128] http://www.bu.edu/academics/law/courses/law-jd-870/
[129] http://www.bu.edu/academics/law/courses/law-jd-780/
[130] http://www.law.berkeley.edu/php-programs/courses/coursePage.php?cID=8278&termCode=D&termYear=2011

		copyrights, what types of conduct authors have rights to control (and not control) certain kinds of uses of their works, special rules concerning transfers of rights, infringement standards, and remedies for infringement, and will consider constitutional, statutory, and common law dimensions of copyright and related rights such as anti-circumvention rules. Current controversies in copyright litigation, legislation, and scholarship will also be covered.	
Specialty	**Trade Mark Law**	This course examines key issues in the UK/EU law of trade marks against the backdrop of global and comparative developments. The subject matter of trade mark protection now includes sounds, scents, shapes, movements and even textures. This is accompanied by an expanding scope of protection, while the very basis for such protection remains contested. Therefore this course aims to develop a critical overview of trade mark registration systems, drawing upon the rapidly developing body of UK and European case law to examine puzzles and conflicting interests. It reconsiders the rationale as well as architecture of registered trademark protection from various interdisciplinary vantage points such as economics, branding and marketing, semiotics and the freedom of expression. The syllabus extends to related areas where rights to signs are invoked, such as the tort of passing off and broader unfair competition law, internet domain names, publicity rights and geographical indications protection	London School of Economics – Department of Law[131]
Advanced	**Copyright Law: Advanced**	This course supplements basic copyright law study with in-depth analysis of particular issues confronting practitioners in U.S. and international copyright-based enterprises – in the music, film, videogame, software and book publishing industries. The course also provides a primer of international copyright law principles. The course focuses especially	Georgetown University – Law School[132]

[131] http://www.lse.ac.uk/resources/calendar/courseGuides/LL/2010_LL4D1.htm
[132] http://www.law.georgetown.edu/curriculum/tab_courses.cfm?Status=Course&Detail=292

		on the creation, protection and dissemination of music and movies in the Internet environment. It covers cutting edge cases and issues involving social networking sites, user-generated content, peer to peer music and film services, technological protection measures, etc. Attention is paid to recent policy debates, including legislative proposals, author v. user "rights" and licensing, technological protections, and liability. The international copyright law coverage includes treatment of the major treaties and conventions, focusing on traditional and digital works.	
Advanced	**International & Comparative Law of Trademarks, Designs & Unfair Competition**	An historical, economic and comparative examination of the common law and civil law concepts of trademarks, passing off and unfair competition, with particular reference to the UK and commonwealth jurisdictions; the USA; Canada; France and Germany; by looking at the international trade mark regimes and the role and influence of relevant conventions, agreements, protocols and treaties.	King's College London – School of Law[133]
Advanced	**International & Comparative Law of Copyright & Related Rights**	is module is designed to provide an international and comparative study of copyright, authors' rights, neighbouring rights, moral rights, rights in performances and other related rights. The international Conventions (in particular the Berne Convention and the Rome Convention) will be examined together with the major features of copyright laws in the leading copyright systems (UK, France and the United States) and those of other countries as may be of topical and/or student interest.	King's College London – School of Law[134]
Advanced	**Advanced Patent Law**	Advanced Patent Law is the follow-on course to Patent Law. Advanced Patent Law typically builds on Patent Law in three ways. First, it covers topics that are omitted from Patent Law. Second, it	Indiana University – Maurer School of Law[135]

[133] https://www.kcl.ac.uk/prospectus/graduate/structure/name/intellectual-property-law/alpha/JKL/header_search//keyword/law
[134] https://www.kcl.ac.uk/prospectus/graduate/structure/name/intellectual-property-law/alpha/JKL/header_search/keyword/law
[135] http://apps.law.indiana.edu/degrees/courses/lookup.asp?course=284

		presents some topics in much greater depth, sometimes by engaging more deeply in the application of patent law to particular technology areas (such as biotechnology and pharmaceuticals), sometimes by more thoroughly exploring the edges of substantive patent law and their interfaces with other areas of law (such as antitrust law, administrative law or civil procedure). Third, it involves intensive study of very recent case decisions, usually those emanating from the Court of Appeals for the Federal Circuit, along with current scholarly writings. Ordinarily, there will be no final examination. Instead, students will produce a series of short, graded research papers throughout the semester, and will periodically organize and lead class discussions.	
Advanced	**Advanced Patent Law Seminar**	This advanced seminar presumes knowledge of patent law fundamentals and examines various specific topics, including the Hatch-Waxman Act, patent administration, claim interpretation, the doctrine of equivalents, the experimental use privilege, and comparative and international patent law. Students will write papers on some specific aspect of patent law, not limited to those topics covered in class. Prerequisite: Patent Law or equivalent experience.	Georgetown University – Law School[136]
Advanced	**Fair Use in Film**	This course examines the law of fair use, in particular as it applies to film. After a survey of fair use law, it examines particular fair use in film cases. Students also participate in evaluating film projects currently in production	Stanford Law School[137]
Advanced/ Practice	**Patent Remedies and Defenses**	Studies issues commonly arising in modern patent litigation. The course examines necessary parties, remedies, and affirmative defenses.	University of Houston – Law Center[138]
Practice	**Intellectual Property**	The Intellectual Property and Entrepreneurship Law Clinic at the	University of Connecticut –

[136] http://www.law.georgetown.edu/curriculum/tab_courses.cfm?Status=Course&Detail=1253

[137] http://www.law.stanford.edu/program/courses/details/281/Intellectual%20Property%3A%20%20Fair%20Use%20in%20Film/

[138] http://www.law.uh.edu/ipil/degrees.html

	and Entrepreneurship Law Clinic	University of Connecticut's School of Law provides students with the unique opportunity to counsel Connecticut's innovators on an extensive range of intellectual property (patent, trademark, copyright and trade secret) and related business law issues. Since the Intellectual Property and Entrepreneurship Law Clinic opened its doors in January 2007, it has assisted (or is presently assisting) more than 165 clients, hailing from all eight counties in Connecticut and representing more than 65 different cities and towns. Under the guidance of supervising attorneys, the Clinic's students are involved in all aspects of client matters, including but not limited to conducting interviews, performing legal research, drafting documents, and interacting with the U.S. Patent and Trademark Office and the U.S. Copyright Office. The Clinic has advised clients regarding numerous legal issues, including patent searches and applications; trademark clearances and applications; copyright and trademark licensing; and nondisclosure, consulting, and employee agreements.	School of Law[139]
Practice	**Patent Prosecution Practice**	This skills and writing course will focus on the practical and strategic aspects of patent preparation and prosecution before the United States Patent and Trademark Office, and the effects of prosecution decisions on patent enforceability. Claim drafting and responding to Office Actions with an eye towards enforcement will be a primary focus, and both will be addressed with short practical writing assignments. Coverage of the appeal process will include preparing a final written Appeal Brief (in compliance with 37 CFR § 41.37) and making oral arguments before a mock panel of Administrative Law Judges. Among other topics, the strategic use of the post issuance reissue and reexamination procedures, especially in	Georgetown University – Law School [140]

[139] http://www.law.uconn.edu/content/intellectual-property-and-entrepreneurship-law-clinic
[140] http://www.law.georgetown.edu/curriculum/tab_courses.cfm?Status=Course&Detail=1406

		anticipation of litigation, will also be addressed.	
Practice	**Patent Litigation**	This course will be an interactive introduction to patent litigation, taught around a hypothetical case in the District of Delaware. We will explore cutting-edge issues through advocacy on behalf of the hypothetical plaintiff and defendant. As in actual litigation, students will be required to apply written and oral advocacy skills to the facts as they emerge in view of the applicable law, emphasizing the latest Supreme Court and Federal Circuit decisions. Except for the first week, each class will normally begin with one and one-half hours of oral advocacy based on the assignments distributed the prior week. Following a short break, the instructors will discuss patent litigation topics pertaining to the next week's assignments. The class will be divided into Groups A and B. Assignments to each group will be for the duration of the semester. Group A will represent the plaintiff; Group B the defendant. Over the course of the semester, students will follow the litigation from start to finish (complaint through appeal) as counsel for the plaintiff or defendant. Approximately every other week, students will be asked to produce written work (e.g., pleadings, motion papers, deposition outlines).	Columbia Law School[141]

[141] http://www.law.columbia.edu/courses/L8050-patent-litigation

Table 2 – Peripheral Courses in IP Law, as Offered by Various American & British Universities

Name	Description	Law School
Innovation, Technology and Patent Law	This course critically examines UK and European patent law from different perspectives including the economic case for incentivising innovation, industry and technological-specificity of legal doctrine, international economic and political frameworks, institutional features, and legal developments in the domestic laws of other countries as well as at regional and international levels. Case studies from comparable jurisdictions such as US, India or Latin America will be used where appropriate.	London School of Economics – Department of Law[142]
Biotechnology Law and Policy	This course is an interdisciplinary exploration of many of the legal and policy issues raised by the biotechnology industry. It is also intended to give law students and scientists the opportunity to learn more about each other's disciplines by working together. The course covers issues of patenting, corporate organization and financing, conflicts of interest, regulatory approvals, health care financing issues, and tort liability, as well as examining the prospects for and implications of the biotechnology revolution. The course includes materials and presentations for non-scientists on background knowledge about the science and technologies involved, as well as materials and presentations for non-law students on background knowledge about the legal system. After the preliminary sessions, the course is organized around a series of specific, hypothetical problems. An interdisciplinary group of students presents and discusses a solution to each problem. This course is open to graduate and professional students from all parts of the University and, by special consent of the instructor, to qualified undergraduates.	Stanford Law School[143]
Intellectual Property as a Strategic Asset	Companies today are only beginning to learn what intellectual property lawyers have known for years: that intellectual property - patents, trademarks, copyrights, and trade secrets - creates value in ways no other business asset can, offering profit margins well above those that can be earned from	Stanford Law School[144]

[142] http://www.lse.ac.uk/resources/calendar/courseGuides/LL/2010_LL4C1.htm
[143] http://www.law.stanford.edu/program/courses/details/440/Biotechnology%20Law%20%26%20Policy/
[144] http://www.law.stanford.edu/program/courses/details/320/Intellectual%20Property%20as%20a%20Strategic%20Asset/

	manufacturing. This is why intellectual property based companies are among the most profitable in the economy and why even old-line firms like Ford Motor Company are shedding physical assets, concentrating their patent portfolios and acquiring brand names. Students, with the assistance of the instructor, will pick a single company and explore how the company manages intellectual property as an asset and how it monitors - and manages - the law's impact on the asset. The research can entail either literature review, field research (Silicon Valley offers rich research pickings) or both.	
Antitrust & IP	This seminar will focus on the intersection of antitrust and intellectual property law. We will examine current antitrust cases in high-technology fields, including computers, software, and pharmaceuticals. The course takes a practical approach to real issues currently being litigated, including- IP an an "essential facility"; tying and bundling of IP; antitrust issues arising from standard-setting in high-tech markets; market definition and mergers in high-tech markets; "reverse payment" settlements in the pharmaceutical industry; and the conduct of dominant firms. Students will be expected to write a legal brief on a topic of their choosing, based on the course materials. A brief of sufficient length can satisfy the writing requirement.	UC Berkeley School of Law[145]
Economic Analysis of Intellectual Property	This course will introduce students to the intersection between intellectual property law and economics from both a macro and micro-economic perspective. Topics range from the economic justification of intellectual property law to intellectual property portfolio management tools that can evaluate intellectual property protection as an investment.	University of Washington – School of Law[146]
Innovation, Technology and Patent Law	This course critically examines UK and European patent law from different perspectives including the economic case for incentivising innovation, industry and technological-specificity of legal doctrine, international economic and political frameworks, institutional features, and legal developments in the domestic laws of other countries as well as at regional and international	London School of Economics – Department of Law[147]

[145] http://www.law.berkeley.edu/php-programs/courses/coursePage.php?cID=8275&termCode=D&termYear=2011
[146] http://www.law.washington.edu/CourseCatalog/Course.aspx?YR=2011&ID=P504
[147] http://www.lse.ac.uk/resources/calendar/courseGuides/LL/2010_LL4C1.htm

	levels. Case studies from comparable jurisdictions such as US, India or Latin America will be used where appropriate.	
Internet Business Law and Policy	This course provides an in-depth exploration of some of the most interesting and challenging legal, policy and ethical issues facing Internet businesses today. These include novel issues of international law, jurisdiction, innovation regulation, intermediate liability, freedom of expression, right to receive information, behavioral targeting, surveillance, privacy and security. This seminar features presentations by lawyers and technologists from Google, Inc. and other leading Internet businesses.	Stanford Law School[148]
Legal Regulation of Information Technology	The legal ramifications of computerisation and the Internet, focusing on e-commerce, intellectual property rights, privacy rights, censorship and computer crime, and considering the problems of competing sectional interests, globalisation, enforcement and trans-jurisdictionality.	London School of Economics – Department of Law[149]
Media Law	The aim of this module is to educate students in the law regulating activity in relation to the content provided by the media. The module will cover both general content regulation such as libel, copyright and contempt of court in its application to the media, and sector-specific regulation such as Ofcom regulation of broadcast content. Both legal and extra-legal regulation will be considered, as and where appropriate, as well as the policy decisions and relevant lobbies and concerns which influence the making of laws on culturally sensitive issues such as the regulation of pornography and obscenity, or depictions of violence in broadcast media. Themes such as the protection of children via media regulation will be explored. The module will not be limited in its consideration to only the traditional media - the challenges implications for regulation of the internet and other new media such as mobile television will be an important feature in this module. While UK law will primarily be considered as a case study, relevant laws from other jurisdictions will be discussed as and where appropriate, and students will be encourage to analyse by comparison. Students will not be	Queen Mary University of London – School of Law[150]

[148] http://www.law.stanford.edu/program/courses/details/452/Internet%20Business%20Law%20and%20Policy/
[149] http://www.lse.ac.uk/collections/law/programmes/llm/llm-information.htm; http://www.lse.ac.uk/resources/calendar/courseGuides/LL/2010_LL420.htm
[150] http://www.law.qmul.ac.uk/postgraduate/llm/syllabus/list.html#076

	expected to have any prior knowledge of the areas of legal regulation considered. This module will appeal particularly to students with an interest in pursuing careers with law firms which deal with the media, as in-house counsel to media entities, or with an interest in future further academic research in the field.	
Cyberspace Law	This module aims to address all policy and regulatory issues raised by the internet and technology applications enabled by the internet. The borderless nature of the internet and the possibility to transmit information quickly on a global basis has raised difficult questions of state jurisdiction and regulation which this module will explore in depth. The topic of this module affects many different areas of law (IP protection, privacy, content regulation, criminal law, competition law, administrative law) and is therefore a pervasive theme, which lawyers cannot ignore. The module is therefore aimed both at lawyers wishing to specialise in technology/IP law and at lawyers studying other subjects (such as human rights, media law, administrative law or commercial law). The subject of internet regulation will be taught from a policy perspective (rather than a transactional perspective).	Queen Mary University of London – School of Law[151]

[151] http://www.law.qmul.ac.uk/postgraduate/llm/syllabus/list.html#076

Table 3- Educational Technologies by Type[152]

Computer-Based Learning (CBL)				Other Technologies				
Computer-Assisted Instruction (CAI)	Computer-Assisted Teaching (CAT)	Computers for Research (CFR)	Computers for Computing and Processing (CPP)	Audio	Still Pictures	TV and Film	Distance Learning	Hypermedia
Simulations	Electronic transparencies Multimedia presentations	CD-ROM Internet-based research	Spreadsheets DSS, ES Tool software, including word processing, database managers, telecom-munications software, graphics packages Accounting packages Statistical analysis packages	Computer-assisted language learning (CALL) Audio tapes, cassettes, and CDs	Overheads Drawings Photographs Filmstrips	Video Instructional film (moving) Traditional one-way instructional television (live or videotape)	Interactive TV Virtual classroom Satellite classroom Web-based distance learning Interactive chat Asynchronous delivery	HyperCard Interactive multi-media World Wide Web

Source: Bryant, S.M., & Hunton, J.E. (2000). The Use of Technology in the Delivery of Instruction: Implications for Accounting Educators and Education Researchers. Issues in Accounting Education, 15(1), 129-162.

[152] Kimberly A. Sipes & Victor Ricciardi, *Online vs. Face to Face: Is There a Difference in How Accounting and Finance Students Learn in an Online vs. Face-to-Face Setting?,* (School of Business, Kentucky State University, 2006).

Table 4 – Examples of WIPO Academy Online Courses

Name	Description	Duration
Primer on Intellectual Property	Covers briefly the fundamental aspects of intellectual property	3 hours
General Course on Intellectual Property	This course covers the main areas of intellectual property, namely copyright, related rights, patents, trademarks, geographical indications, industrial design, plant breeders' rights, unfair competition and international registration systems.	50 hours
Copyright and Related Rights	This advanced course covers the basic principles of international Copyright Law, international treaties, and recent developments and trends in the area of international copyright. It also covers the role of WIPO in the worldwide protection of copyright.	100 hours
Electronic Commerce and Intellectual Property	This course is structured in three levels. Level one provides a foundation for understanding the basic concepts involved with E-commerce and IP. Level two covers the IP aspects of E-commerce in three main areas: Copyright, Trademarks and Patents. At level three, various sub-topics in each of the above areas are addressed in greater detail.	50 hours
Biotechnology and Intellectual Property	This advanced course aims to illustrate how you can use the current IP system to protect and commercialize your biotechnological invention. After completing the study of this course, you should be able to develop a sound knowledge of the different legal instruments related to protection of your biotechnology invention and execute a strategy for commercializing your invention.	100 hours

Table 5- Problems

To be completed