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Harnessing the power of intellectual property – Strategy and programs of the WIPO Worldwide Academy ☆

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Abstract

The WIPO Worldwide Academy's strategy aims to achieve four "Is," namely to be international, interdisciplinary, interactive and in-depth in its five programs; Policy Development Program, Professional Development Program, Education Degree/Diploma Program, Research and Executive Program, and Distance Learning. Building upon its eight years of existence and initial achievements, the WIPO Worldwide Academy will continue to strengthen its programs and partnerships with academic institutions all over the world. The Academy's objectives, target audiences, content, initial achievements and future challenges are discussed.
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1. Introduction

In today's knowledge-based economy, creativity is a powerful resource that can be harnessed by any country seeking to develop and strengthen its economy. The ability to innovate and create and to generate ideas is inherent in each one of us. However, not all of the good ideas and imagination can bear fruit. A successful process of innovation is a complicated one requiring a number of elements such as a business-friendly environment, an efficient infrastructure and sufficient investment to allow entrepreneurs to undertake a series of actions to set up and develop their enterprises. Many realize the important role of intellectual property (IP) which stimulates human intellect and empowers people, particularly those with the power of creative imagination. Others understand its renewed potential in the context of a knowledge-based economy which is supported by risk-taking entrepreneurship seeking more value-added products and services. Intellectual property is not new. But its modern strategy and management are new [1].

In many countries, only a few people possess enough knowledge and skill sets to assist their nationals in transforming creativity into valuable economic assets through the IP system. The lack of human resources capable of understanding the value of IP and the lack of use of the IP system is a major hindrance for development. Such a deficiency is mostly due to a lack of political support and adoption of policies that integrate IP into national development. Due to this lack of knowledge, some decision-makers think that the IP system is exclusively for the elite multinational companies. That perception discourages nationals from using the IP system. It is this vicious circle that the international IP community wishes to break. It is also one of the most urgent and important challenges facing WIPO Worldwide Academy, a body set up in March 1998 as a central coordinating mechanism for human resources development undertaken by the World Intellectual Property Organization (WIPO), to serve as an educational institution which provides teaching, training, and research services in intellectual property.

☆ Opinions expressed in this article may not necessarily represent official views of WIPO.

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2. Overview of the strategic direction

Our current analysis of the situation surrounding academic and training institutions of IP is a mixed one. While there is increasing awareness of the potential of IP to promote economic, social and cultural development, much needs to be done to foster partnerships and improve international cooperation among academic institutions to promote the full integration of IP into teaching curricula. This is of particular importance given the cross-cutting nature of IP and the need for an interdisciplinary approach to IP education and IP research.

As IP systems in different countries continue to dynamically evolve and IP management also becomes sophisticated, IP training and education now require a complete life cycle from primary education to training programs for adults. The role of public organizations like WIPO should be to ensure that groups often neglected or forgotten by market mechanisms should also be covered by the educational programs. Furthermore, educating younger generations to harness creativity is important since the students of today are the decision-makers of tomorrow. For this reason alone, it is important to find ways and means to provide educators with appropriate and effective mechanisms to boost understanding of creativity and innovation for the development of national and global economies, and in that context, understanding of the role of IP.

It is to be recalled that the WIPO's mission is to be achieved by creating an environment and infrastructure conducive to an enhanced understanding of the contribution of IP for economic, social and cultural development. In order to realize that mission, the Academy takes a leading role in the preparation, coordination and implementation of programs for human resources development worldwide. For example, in 2004 and 2005 respectively, some 216 and 169 officials including IP office staff, patent agents, representatives from R&D institutions from developing countries and countries in transition were trained. The Academy's Distance Learning Programs have become one of the most standardized training tools in the world and trained more than 40,000 people in over 160 countries [2].

The challenges faced by the WIPO Worldwide Academy in meeting the continuous demand for IP education and training can be summarized as follows:

- Need to further enhance the quality of services and diversify the content in order to be more interdisciplinary;
- Dynamically evolving dimensions of the IP system and diversified views thereon;
- High expectations of Member States for the Academy to provide more assistance; and
- Calls for promoting international cooperation among IP academic institutions.

The first point requires an additional explanation. Given that IP is a tool for national development and an entrepreneur's wealth creation, the use and management of IP require broad knowledge and astute strategy about how best IP should be adapted to and integrated into diversified economic, cultural and social needs.

For instance, if a question of IP management arises in the context of maximizing the value of a company and shareholders interests, the evaluation of the company's IP needs to be made. Few schools have fully reflected in their curriculum an emerging perception that IP is not only a legal title but also an economic asset which has a constantly changing market value.

Another example is a question arising from the need for public health. An appropriate balance between public policy objectives seeking access to essential drugs, and incentives for researchers and producers of new drugs has become a crucial question which needs thorough consideration worldwide and further debate on the policy options from political, economic, social, legal and ethical dimensions. They are not questions exclusively for policy-makers to answer. They are also questions which may well decide the fate of companies which are involved in the research, development, marketing, distribution and use of such products. There are many more examples indicating the growing impact of IP on our lives and businesses. The programs should address diversified needs of different audiences (producers, distributors, consumers and so on).

Programs also need to be practical and tailor-made reflecting different cultures and business environments. For instance, universities do not usually provide practical training programs in such areas as patent drafting and patent information search. Basic knowledge and skill sets about these practical aspects are increasingly important for both engineers and managers, because they are too crucial to leave it entirely to lawyers to decide, particularly when certain IP rights or applications are likely to affect the fate of the firm's core technological competence and strategic positioning in the market [3].

However, the fact of the matter is that, in most cases, IP training programs, if available at all, form only a marginal part of one time off in-house training programs which are provided to newly recruited staff. In some countries, programs of IP management specially designed for managers have emerged as an elective and intensive course at MBA or MOT (Management of Technology). They still remain highly technical and specialized disciplines. As a number of contributors to the *World Patent Information* suggest, business managers also need general knowledge about practical aspects such as how they could use patent information to evaluate strategic options in the market [4], and what implications specific techniques for drafting core patents may have in taking management decisions of business alliances with some firms and legal battles with others. There are many cases such as the BlackBerry® [5] which have taught us that IP is one of the essential elements for

managers to master in order to secure a good market position or even for the company's survival. These are reasons why IP training programs need to have more interdisciplinary approaches and need to be attractive and useful to more diversified participants in the program.

3. Current programs

The WIPO Worldwide Academy's programs initially started with a few training courses inherited from WIPO's programs for technical assistance, with a special focus on inter-regional training courses for trainees of intellectual property offices (IP Offices) as well as high level policy forum for IP policy advisors and decision-makers including heads of IP Offices. At the time of establishing the Academy, a new project for distance learning was launched. Since then, in response to growing demands from governments of WIPO Member States for training officials of other government agencies (such as the customs offices, the judiciary), IP teachers ('train trainers') and business managers, the Academy has progressively expanded its coverage and the constituencies the programs should target. Last year, the structure of the programs was completely rearranged and reshaped in order to address various stakeholders of the IP system. Furthermore, this was intended to introduce more focused approaches to IP education and training.

As shown in more detail in Table 1, the current programs consist of the following:

- Policy Development Program;
- Professional Development Program;
- Education Degree/Diploma Program;
- Research and Executive Program; and
- Distance Learning Program.

In view of the Academy's mission and responsibilities, each program aims particularly to meet four strategic directions to the extent possible, as illustrated in Fig. 1:

- *International*: WIPO Member States currently number 183 countries. The Academy programs include elements in relation to international protection of IP, international developments of IP systems and other topics arising from international trade and business.
- *Inclusive*: in view of the global memberships of WIPO, programs cater for countries at different levels of development, different cultural backgrounds and different languages. Arrangements facilitating the training of participants from countries of lower income are made in most programs.
- *In-depth*: taking advantage of WIPO's central forum for decision-makers and experts to hold international debate on IP issues, the quality and content of programs are unique. The exceptional quality of programs is maintained by contributions from world class partners and advisers.

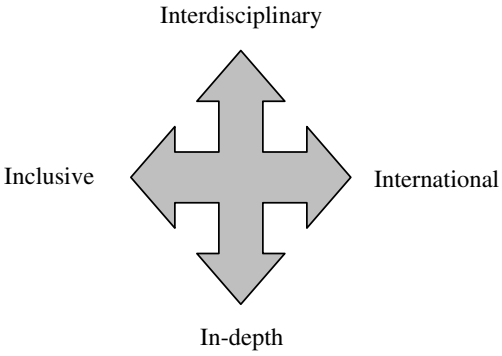


Fig. 1. Four "Is": Strategic Directions of the WIPO Worldwide Academy.

Table 1
Summary of WIPO Worldwide Academy programs

Programs	Content	Target	Features
Policy Development Program	Policy debate for a deeper understanding of various implications of IP on national and global economy and society (E, F, S)	High-level policy advisors and decision-makers	Intensive and interactive exchange of views assisted by resource persons
Professional Development Program	Basic or specialized training on the law, administration and IP rights enforcement, and IP information (E, F, S)	Government officials working at IP Offices	Standardized programs including on-site training at IP Offices
Education Degree/ Diploma Program	IP courses jointly organized by partner universities (E)	Students	Under-graduate and master courses
Research and Executive Program	IP research and practical programs for business (E)	Business executives	Intensive courses with an emphasis on case studies
Distance Learning Program	On-line education program especially designed by the Academy's platform and pedagogy in multiple languages (E, F, S, A, C, R and P and in some other languages; see Section 9 below)	All in need of general and advanced knowledge in a few months	An effective tool of 'Mass Education'

- *Interdisciplinary*: IP in this knowledge-based economy requires a truly inter-disciplinary approach in which programs are enriched by various partners from diversified and relevant disciplines, such as economics, business management, engineering, science and technology, culture, environment and sociology.

4. Advocacy role for IP education

Reflecting the above-mentioned strategy and vision in assistance to Member States, an increasing number of countries have included a comprehensive IP human resource development program in their national strategy for economic development. In response to requests for advice for best practices in IP education and research, the Academy organized an *International Symposium on IP Education, Training and Research* at WIPO (July 2005) [6]. The experts and advisors from leading academic institutions called for an interdisciplinary approach to IP education and research which would encourage broad-based understanding and more effective use of the IP system as a key tool in promoting economic, social and cultural development. The Symposium was followed by a series of national symposia on *IP Education, Training and Research*, organized, in New Delhi (August 2005); Manila (January 2006); and Rio de Janeiro (May 2006); Minsk (May 2006); and Kuala Lumpur (July 2006). Several countries have recently established, or decided to set up, a national IP Academy or IP Training Center as a central institution to take the lead in national IP human resource development.

5. Policy Development Program

A wide range of IP policy questions have arisen in the context of development. No one-size-fits-all solution exists. Experience obtained, and lessons learned by some countries are, however, useful to others. Initially policy debate centered around the relation between international trade and investment and the role of IP. Recently, much broader scopes of issues have been brought into the debate, such as an interface between IP and other public policies with respect to science and technology, national innovation promotion, public health, preservation of genetic resources and the environment, as well as the economic and social impact of counterfeiting and piracy activities. The methods adopted for the Program are based on physical meetings in which presentations are made by resource persons (external and internal), followed by debate on certain policy issues by participants with assistance by the resource persons. In most cases, the meetings took place at WIPO headquarters building in Geneva.

Examples of Policy Development Programs;

- Intellectual Property for Ambassadors and Diplomats from the Permanent Missions in Geneva;
- Academy Sessions on Intellectual Property for Participants of the World Trade Organization (WTO) Trade Policy Course in Geneva (at WIPO and WTO);
- Colloquia on Intellectual Property for Government, Law Enforcement, University and Industry High Level Officials;
- WIPO-KIPO Academy Sessions for Heads of IP Training Institutions in Geneva;
- WIPO-WTO annual Colloquium for Teachers of Intellectual Property and Intellectual Property Professors from developing countries in Geneva;
- WIPO Academy Fora for the Judiciary on Enforcement of Intellectual Property Rights in Geneva.

The number of participants in the training programs organized by the Policy Development Program from 2002 to mid-2006 totaled 2988.

6. Professional Development Program

The Professional Development Program provides education and training for intellectual property officials working in Intellectual Property Offices (IPOs) in developing and least developed countries, and countries in transition to a market economy. That program is aimed at enhancing IP-based skills and knowledge, and at raising the level and efficiency of services and products in each IPO. The IPO in each country is the focal point for intellectual property activities, including, legislation, industry and private sector interface with government, and is also a source of intellectual property information. It provides assistance to consumers, the public and non-governmental organizations that are active in relevant areas including environment, human rights and humanitarian assistance to the developing world. For that reason, it is imperative that the human resources in each IPO are provided with the best and most up to date IP information, education, and training. The Academy has actively been providing assistance in this connection.

Training courses and seminars on IP subjects are offered every year at the intermediate and advanced levels. These courses are conducted with several of the Academy's partner institutions including the IPOs of Algeria, Austria, Canada, Czech Republic, Denmark, Egypt, Finland, France, Germany, Israel, Morocco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom; and with organizations such as the European Patent Office (EPO); African Intellectual Property Organization (OAPI); African Regional Intellectual Property Organization (ARIPO); and European Union Office for Harmonization in the Internal Market (Trade Marks and Designs) (OHIM).

From 2002 to mid-2006, more than 125 courses in over 112 countries were organized under the Professional Development Program, and more than 885 people benefited from these courses.

7. Education Degree/Diploma Program

The *Education Degree/Diploma Program* was created to fulfil the need for teaching and educating younger generations in the field of IP. Through this program, the Academy assists a number of universities throughout the world to design courses on IP and to cooperate in teaching and training. In particular, the Academy launched in 2000 the first *Post-graduate Specialization Course on Intellectual Property*, in cooperation with the University of Turin in Turin, Italy, and with the assistance of the Government of Italy and the International Training Center of the International Labour Office (ILO). The course attracts some 40 students annually; half of whom sponsored by WIPO are from developing countries; the other half, mainly from Europe and other countries, are self-sponsored.

In addition, the Academy has entered into cooperation Agreements with other higher education institutions in order to expand the number of participants receiving specialized training, including:

- Raoul Wallenberg Institute/University of Lund, Sweden – Master's Program in Human Rights and Intellectual Property Rights Law (LL.M);
- Indira Gandhi National Open University (IGNOU), India – Postgraduate Diploma Course in IP;
- University of South Africa (UNISA), South Africa – Diploma Course in IP;
- University of Bucharest, Romania – Diploma Course in IP;
- Cooperation for Higher Education, National Technical University of Ukraine, Kyiv, Ukraine;
- Cooperation for Higher Education, Federal University of Rio Grande Do Sul, Porto Alegre, Brazil.

Through these programs, during the period 2002 to mid 2006, the Academy has provided or assisted in the obtaining of higher degrees/diplomas through financially assisting the organization of the programs and providing resource persons. The total number of students that we have trained in the degree/diploma program since 2002 amounts to approximately 1100. This figure breaks down as follows: Turin (200), Bucharest (80), UNISA (150), Lund (70), IGNOU (400), and Kiev (200).

For the future, the Academy also intends to establish its own master program to meet the ever rising demand for higher quality education and will focus on creating opportunities for postgraduate education since educational institutions of some Member States require that trainers must be holders of a doctorate degree.

8. Research and Executive Program

The *Research and Executive Program* was recently established in order to support the emerging demand from the different sectors for refined, focused study of IP for more business-oriented IP education, training and research. One of the prime objectives of this Program is to demonstrate, through research that the strategic use of the IP system adds value, thus illustrating that intellectual property is a tool for economic growth and national development.

Business-specific IP education and training is undertaken in partnership with renowned institutions of learning in the fields of law, business management, engineering and technology. Teaching methods include, group discussions, case studies, examination of best practices, and real life experiences and situations.

In response to growing demand for quality intellectual property (IP) education from the business community around the world, the Academy has launched a new study program for business executives. A first course of the Executive Program was organized at WIPO on September 18 and 19, 2006, and offered world class business-oriented IP education and fostered interdisciplinary teaching and research in business and management aspects of IP [7].

9. Distance Learning Program

The *Distance Learning Program* was launched in June 1999 as a direct response to the demand of Member States for increased human resources development, and in the light of limited human and financial resources. This Program heralds a shift in teaching methodology, with the attendant advantages of flexibility of time and space and cost effectiveness. Distance learning courses are delivered via the Internet, using a format that allows for online registration, student-teacher interaction, student tests, course-monitoring and evaluation systems. Since its inception when the first introductory course on intellectual property was developed, the Distance Learning Program has made major strides.

The impact of the "*General Course on Intellectual Property*" (DL101) is a clear indication of the enormous potential of the Distance Learning Program. So far, more than 60,000 students in over 160 countries have taken the "*General Course on Intellectual Property*". This Course and a few advanced courses described below are offered in Arabic (A), Chinese (C), English (E), French (F), Portuguese (P), Russian (R) and Spanish (S) [8].

The range of courses offered has also expanded. The development of new course content, leading to the creation of a comprehensive IP curriculum, was a priority for the Academy in 2004 and 2005. In addition to DL-101, the Program at present includes a *Primer on Intellectual Property* (an easy-to-read introduction to the fundamental concepts of IP); and four advanced courses: *Copyright and Related Rights* (DL-201); *Electronic Commerce* (DL-202); *Introduction to the UPOV System of Plant Variety Protection under the UPOV Convention* (DL-205); and *Intellectual Property and Biotechnology* (DL-204).

In addition, the Academy will launch five additional Advanced Courses in 2007: *Patent Drafting* (DL-208); *Patent Search* (DL-209); *Patents* (DL-301); *Arbitration and*

Dispute Settlement (DL-302); and *IP for Small and Medium-Sized Enterprises* (DL-303).

In this connection and to better meet the needs of developing countries and countries in transition to a market economy, the Academy cooperates with strategic partners in the field. The following are a few examples:

- in cooperation with the Korean Intellectual Property Office (KIPO) and the Korean Invention Promotion Association (KIPA), which comprises 12 major Universities, DL-101 was made part of the Korean Distance Learning Program in IP (DL-KL101). The objective of this course is to simultaneously teach international and Korean intellectual property perspectives. Since its inception in 2004, 380 students have taken this 12-week course;
- in cooperation with the Federal University of Rio Grande Do Sul, DL-101 was included in the university's graduate curriculum. Since 2004, 410 students have taken the course.
- in response to the request by the Ministry of Education and Science and the State Department of Intellectual Property of Ukraine, WIPO authorized the translation of DL-101 into Ukrainian. Since 2005, the course has been offered in nine educational institutions in Ukraine [9].

10. New directions for the future

The following strategic directions should support the Academy in its uncompromising quest for academic excellence:

- Choose teaching and research priorities on the basis of the comparative advantage derived from being part of WIPO such as its global view and central position in international policy debate on IP issues;
- Ensure sustainable, flexible and scalable methods of delivering services to respond to the evolving needs of the Member States of WIPO; and
- Enter into partnerships with selected institutions to achieve the greatest intellectual outputs and cost effectiveness.

The Academy has an Advisory Board which meets regularly, the last meeting having taken place in June 2006. At its meeting in June, the Advisory Board provided pertinent advice on a number of issues for its future direction mentioned above and encouraged the Academy to vigorously pursue its missions and strategic goals in order to meet its objectives. The challenges facing the Academy include:

- The way in which distance learning courses should be further developed and delivered;
- Diversification and customization of programs to reflect an interdisciplinary approach;
- Further cost-effective development of reference and teaching material in different languages;
- Partnerships and sponsorships to meet resources constraints; and
- International networking of academic institutions to encourage "training of trainers" and promote a "knock-on effect".

11. Conclusion

Efforts at the national, regional and international level for IP human resources development need more international cooperation at all levels including government ministries responsible for IP, education, trade and economy, science and technology, culture, public health and environment; various faculties of universities, training institutes for IP professionals, and business, to name but a few. All the constituencies and stakeholders need more interdisciplinary approaches to IP education and training. Enhancement of content of programs, cooperation between educators and administrators of programs, an effective use of the Internet and sharing useful training tools and material will have to be explored. The delivery and results will be enhanced with limited resources if common approaches and sharing of tools are internationally coordinated. The recent boom in establishing national and regional IP Academies [10] and training centers provides opportunities to reinforce international cooperation in which the WIPO Academy plans to continue to play a leading role.

References

[1] See the most recent publication by the Director General of WIPO, Dr Kamil Idris (co-authored with Mr. Hisamitsu Arai): "The Intellectual Property-Conscious Nation: Mapping the Path from Developing to Developed" WIPO Publication No. 988 (E), also made available at WIPO web site at <www.wipo.int/about-wipo/en/dgo/wipo_pub_988/index.html>.

[2] For complete information about the most recent report of human resource development activities undertaken by the Academy, see the Program and Performance Report for the 2004–2005 Biennium at <http://www.wipo.int/meetings/en/details.jsp?meeting_id= 10264>. The most up-to-date information about the Academy's activities may be found at its web site at <www.wipo.int/academy/ en/>.

[3] For further information about WIPO's activities in this area, visit PatentScope at <http://www.wipo.int/patentscope/en/>. See also the article by Herce JL. WIPO patent information services for developing countries. World Patent Inform 2001;23 (3): 295–308. Though somewhat outdated on the role of WIPONET, see also Idris K. WIPONET charts course for IP information exchange in the digital age. World Patent Inform 2000;22 (1–2): 63–6 (see Section 4.2.4).

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[5] See, for example, an article of the New York Times which reported on a patent case involving the product: ''Supreme Court Refuses Review in BlackBerry Patent Dispute'' by Ina Austen on January 24, 2006.

[6] Press Release on the outcome of the Conference and its program are made available at <www.wipo.int/academy/en/meetings/iped_sym_05/index.html>.

[7] See the program of the first Executive Program (<www.wipo.int/academy/en/execed/sipm/sipm.html>) and a draft program of the second Executive Program to be organized in March 2007 in Goa, India (<www.wipo.int/academy/en/execed/sipm/goa_mar_07/index.html>).

[8] The availability of programs in various languages is published on the Academy's web site: <www.wipo.int/academy/en/courses/distance_learning/>.

[9] The Academy assisted other educational organizations and training centers in planning and organizing their distance learning courses. See the latest program for 2006 at <www.wipo.int/academy/en/courses/distance_learning/catalog/pdf/dl_brochure_2006.pdf>. Recently, the EPO and its Academy also launched e-learning programs. See Feinäugle R. Distance learning from the European Patent Office. World Patent Inform 2006;28 (1):63–74.

[10] The EPO set up its Academy (European Patent Academy) for Member States of the EPO (<http://academy.epo.org/>). IP regional training centers were set up at OAPI and ARIPO.



Yo Takagi joined the Japan Patent Office as a patent examiner in 1979. From 1984 to 1994, he held various posts in the Government of Japan to participate in meetings at WIPO and the GATT for TRIPS. In 1994, he joined WIPO as Director of the Industrial Property Information Division and promoted projects of patent information dissemination through the Permanent Committee on Industrial Property Information and Committees of Experts of International Classifications. Since 1999, as Executive Director, he has assisted the Director General in strategic planning and policy development and in overseeing strategic directions of IT programs and the WIPO Worldwide Academy. He holds a Master of Chemical Engineering from Kyoto University of Japan.



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