THE TEACHING GROUPS ON INTELLECTUAL PROPERTY IN SCIENCE AND POLYTECHNIC UNIVERSITIES

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THE CHARACTERISTICS OF INTELLECTUAL PROPERTY TEACHING IN CHINA

The teaching and research of intellectual property have been increasing since the first patent law in China was issued on March 12 of 1984. Interest in intellectual property started with the introduction of the Trade Mark Law, in August, 1982. However, because of a variety of reasons, most university people had not known about the intellectual property theory except a few faculty and students of law school. This situation was thoroughly changed by the entry into force of the Chinese Patent Law.

The need for intellectual property knowledge stemmed from following reasons in the last few years:

Firstly, not only hundreds of qualified examiners were needed but also adequate numbers of patent agents, to start and run the patent system in time. Such a great need for patent agents in a short period of course, required a massive teaching effort. In this respect no other country can be compared with China.

Secondly, Chinese universities, particularly science and polytechnic institutions, show great interest in favour of the patent system. Chinese universities think the protection of patent right is an effective means to protect their achievements of technological research. Accordingly, patent administration and agency systems in each university were gradually established and patent agent groups of their own universities were educated and made. This experience is also unique to China.

Additionally, the needs for knowledge of patent and trade marks is increasing as economic reform develops extensively, the autonomous right of enterprises enlarges and as competition between enterprises becomes stronger. Lack of knowledge of intellectual property cannot satisfy the desire of seeking the proper means to protect technology and to strengthen an enterprise's competitive position. It makes the task of popularizing patent education to enterprises more urgent.

Finally, a new tendency in popularizing copyright education has appeared due to the activities in the legislation of copyright in China and concern for it from publishers.

Thus, it is apparent that there is great need for the teaching of intellectual property in China. Such needs are so great that the establishment of a professional teaching team on intellectual property becomes a necessity. Such a teaching team is presently taking shape, developing and improving gradually.
THE TEACHING TEAM ON INTELLECTUAL PROPERTY IN CHINA

According to present teaching activities, the following are three types which are considered as the nucleus of teaching team of intellectual property:

The Professionals of the Patent Office in China

Some examiners and other professionals with the Patent Office of China who studied or received education abroad at the very beginning formed the earliest teaching group on intellectual property. There was no other unit which was able to organize the teaching activities of intellectual property to educate the first generation of patent agents in China, except for the Patent Office of China. Although the Patent Agent Department of CCPIT (China Council for the Promotion of International Trade) was also established early and invited some foreign experts to China to teach, their activities on intellectual property had not yet been formed on a large scale, since they only trained their own staff members.

Most present patent agents in China are the result of the teaching activities of examiners and other professionals of the Patent Office of China. After the first of April of 1985, however, examiners went to their own professional jobs. The teaching job which used to be done by examiners is now done by its educational branch in Shanghai—the institute of Patent Cadres for Further Studies—through short term programs held at regular intervals.

Professors from Law Schools or from Law Departments of Universities Work at Teaching or Research on Intellectual Property

Generally speaking, the foundation of professors in the field of theoretical knowledge is rather solid. The nature of their teaching is to regard intellectual property as a part of jurisprudence to teach and not as an independent system. Usually, they would not like to pay attention to those nonjuristc parts of intellectual property theory, such as technical contents. Such case can be found in those textbooks published presently. And this is because of the designed curriculums set by the law school or law departments of universities.

New Teaching Staff of Intellectual Property in Science and Polytechnic Universities

The teaching groups in this field in the science and polytechnic universities have been increasing. This trend is inseparable from their interest and enthusiasm for the patent system. The cases of application for patents by science and polytechnic universities comprise a major part of the patent applications in China.

Let us take the example of Shaanxi Province. Till the end of February, the number of patent applications in Shaanxi was 801. Among these cases, 185 came from universities and 83 cases came from Xi'an Jiaotong University with which the author of this paper works. In order to complete so many files of patent applications, those universities have educated their own patent agents, who used to be professors, in various other technology fields. A nucleus of these patent agents, that is "full time patent agents", appeared gradually on the front line of intellectual property teaching activities. This situation stemmed from the great need for patent agents at the very beginning; of
course, their long time teaching experiences have enabled them to adapt themselves quickly to the new subject in such a short time. For example, in January of 1985, four full-time patent agents in Xi'an Jiaotong University began their first job as patent agents, to open a one month intensive program which was requested by the Ministry of Education to educate about 80 people to be qualified patent agents for universities and other units in North-West and South-West China. Four of them finished their intensive program for patent agent in Beijing organized by the Ministry of Education just one month ago.

When the tide of great demand for patent agents receded, the only motivation to stimulate those "full time patent agents" to keep on their teaching work was from inside universities.

On the one hand, as the patent system has become more and more popular, the science and polytechnic universities came to realize the importance of publicizing patent knowledge among faculties and students. What is more, it should be regarded as a formal course to students, because any of them would be a potential inventor. On the other hand, owing to the organizational structure of the universities, "the full time patent agents" left from their original teaching positions, and this made it hard for them to get promotions in the teaching fields. That is why we found it difficult for these professors to accept this. Nevertheless, they were happy to teach and help in promoting knowledge of intellectual property by organizing teaching groups for divisions which where attached to certain departments, such as management school.

In this way, professors can do some teaching while practising patent agency. They regard intellectual property as their own new major. In this sense, they are "full time" intellectual property workers, working with both theoretical and practical jobs.

These teaching groups are lively and adaptable to the changing situation. They are capable of making themselves more perfect. However they still have some weaknesses which need to be discussed conscientiously.

**ANALYSIS OF THE TEACHING GROUPS ON INTELLECTUAL PROPERTY IN SCIENCE AND POLYTECHNIC UNIVERSITIES**

A predominant feature of the teaching groups on intellectual property in science and polytechnic universities is that they not only do theoretical teaching work but also practise as patent agents. In the field of intellectual property, they started and developed from practising patent agency and each of them owns their own respective technological background, having received some training on patent agency and participated in certain practical work in this subject. Now they still continue their work as patent agents and many constructive experiences have been obtained constantly from their practising which has become a favourable factor in the teaching of intellectual property. They also get some benefits from their colleagues --"part time patent agents" who are acting as their supporters, still working at their former majors and practising patent agency part time. Relatively speaking, they have plenty of energy and time to teach in the field of intellectual property.
Another factor which should be mentioned is that although they were all transferred from the front of teaching or research position of their former majors into the field of intellectual property, they did not leave from their universities. This case put them in an unstable situation. Every one of them has undergone the experience of suffering in hesitating, then making up their minds to change their majors. From the very moment they decided to change their majors, the idea of having been tied their personal future with the cause of intellectual property in China emerged. They are well aware of the facts that their personal future is closely related to the development of intellectual property cause of China. Only by developing both theoretical and practical jobs relating to intellectual property in universities, can they make their own careers. On the whole, these teaching groups have presented much vitality in the pioneering and developing stages of intellectual property teaching.

These teaching staff also reveal the feature of adaptability in various situations owing to a broad developing space in universities besides their own efforts. They enabled themselves to be ready in a short period to train patent agents at the very beginning when patent agents were in great demand in China. They switched the contents of teaching in time to technology licensing when the numbers of patent applications in China reached a certain amount and the transfer of patent technology became a problem. For example, the Society of Intellectual Property of Universities in Shaanxi Province held a program "Patent Agency, Prosecution and Licensing" in June of 1987 in Xi'an Jiaotong University. This capability of adapting themselves to various changing situations, is due to the result of their own endeavour. According to needs they can freshen and develop the levels and composition of their professional knowledge in the intellectual property field. They always make the teaching materials substantial in content while they keep studying to improve themselves academically.

Generally speaking, the capability of self-improvement of teaching staff of intellectual property in the science and polytechnic universities is relative to the environment of the universities. Self-development and self-improvement are common rules of the teaching team of universities. Here it refers to the teaching team as a unit, not any individual person. The environment, condition and facilities of universities have made effective teaching possible. For example, up to now some key universities in China have sent dozens of people abroad. They not only practise patent agency but also study theories of intellectual property with law firms or faculties of law. According to the needs of each university some of them extend their studies to technology transfer or international business law. Among them, those who have finished their study abroad and come back to China are the backbones of the teaching groups. Activities such as sending people abroad are continuing and developing, as contacts with the world are increasing.

However some kinds of problems with those teaching groups should be paid attention to:...

There are some problems, firstly, relating to the system of universities. As to science and polytechnic universities, intellectual property is a new professional field. The professors in this field started from practising patent agency and almost without any exception. Hence they have been acting as patent agents. How should a proper work system in which the teaching groups can work efficiently be organized? Broadly speaking, the types of faculty may be distinguished in the area of intellectual property teaching:
1. Professors that have not quit their former majors and are still engaged in teaching and research, while practising patent agency part-time. Such part-time work may, as mentioned above, jeopardize their academic credentials. Because of this, it's harder for them to further facilitate their teaching work on intellectual property. Their role of acting as patent agents is quite workable provided some regulations are set up. However one cannot be expected to do two kinds of things at the same time in different majors equally or successfully.

2. Professors that have quit their former majors and have become full time patent agents. They do some teaching jobs of intellectual property while they do a patent agency job most of the time. Both jobs are done in a patent agency which is usually attached to the science and research department of universities because of financial reasons and the scope of its services that is open to both the university and the public. This improper organizational structure has also hindered the further development of teaching on intellectual property.

3. Professors that have left their former majors and taken intellectual property as their new professional field. They not only do a patent agency job in a patent agency of university but also do teaching and research jobs on intellectual property in a teaching group or division. This situation is conducive to the development of teaching on intellectual property and in combining theoretical teaching with the practice of patent agency. The only problem is that they might be overburdened with many obligations, if there is not a sufficient number of assistants to help them. The best choice perhaps is that the members in a patent agency of university comprise two types of patent agents. The first is part-time agents who keep their former majors, another is full time agents who have departed from their former majors. The full time agents also form a teaching group or division attached to a proper teaching department, for example, a management school. That means the full time agents do both teaching and agency jobs in two different units respectively and get support from their part time colleagues in a patent agency of university.

Another problem is related to the knowledge composition of the teaching staff. Generally speaking, the foundation of their legal knowledge is not broad and solid enough. They do not know well enough other parts of intellectual property except patents, trade marks, copyright and know-how. There is really a need to enlarge their relevant knowledge such as contract and international business laws, particularly when the scope of teaching is to be extended to cover licensing. Only some professors who came back from abroad have got the advantage to touch those kinds of theory and practice. Some others have benefitted by studying the Chinese law system from a special program held by the Ministry of Education in the year of 1985.

DEVELOPMENT OF THE TEACHING GROUPS ON INTELLECTUAL PROPERTY IN SCIENCE AND POLYTECHNIC UNIVERSITIES

The "development" of the teaching groups on intellectual property in those universities means to make balance either between different universities or between different technical fields. It does not mean the enlargement of the membership of the teaching staff. The quality of the teaching groups is a key point of development. That is the proper way to resolve the problems mentioned above.
Here is an example from Xi'an Jiaotong University which might be helpful to the discussion of the organization of teaching groups on intellectual property. The patent agency of Xi'an Jiaotong University is attached to the science and research department of the university. There are altogether 13 patent agents. Among them eight are part time agents who still work with their former majors most of the time. Five are full time agents who are transferred from their former majors into the economic department of management school of the university and have formed a teaching group on intellectual property. In addition, there are two staff members in the agency Office, who are authorized by the science and research department.

According to the first plan from the Ministry of Education, a educational center of intellectual property would be established in the university. But this has been postponed for various reasons. The teaching group, which comprises two assistants graduated from law school and professors in the economic department, whose majors are economic trade business or English language, etc., formed a new teaching division entitled "international industrial trade". The task of the new teaching division is a program for undergraduate students with this major. Intellectual property and technology transfer are important courses in the program. Of course, they also open intellectual property course to those students of the university who take them as elective courses. In addition, cooperating with a law institute of the university--Technology--Economic Law Research Center, they regard intellectual property as a part of teaching and research jobs of the Center. The teaching group on intellectual property has undertaken the responsibility for teaching postgraduates the subject of "international trade law". A plan has also been drafted to open a postgraduate program in intellectual property.

In such a model, the teaching staff on intellectual property work with two units—the agency and the group, and are administrated by two bosses—the science and research department and the economic department. They have combined three kinds of jobs—teaching, research and patent agency practice.

The experiences of this practice show that the teaching staff have obtained a certain niche in which they could fully play their role, and which also enabled and stimulated them to have a chance to renovate and enrich themselves with some new knowledge. These three kinds of jobs and some other related things have imposed high pressure on the teaching groups, which in turn have motivated their staff to study new knowledge. One problem is that each of them has been overloaded with too much work. One of the reasons is that three of them have been sent to Hong Kong or abroad to work or study. Things will be better after they come back to the university.

Perhaps this case can be concluded as this: science and poly-technic universities may organize a system on intellectual property in some flexible ways according to these various conditions. These ways should be good for teaching research and practice and also make it possible to work unanimously.

In order to resolve the problem of knowledge composition of the teaching groups, on the one hand, professors should further study relevant theory; on the other hand, they should be good at combining theory with practice. Patent agency, of course, is an important part of the practice of intellectual property but not the whole. It may not be necessary for every professor to be an expert in all parts of intellectual property, however, the knowledge of theory and practice of the teaching staff should cover broadly all areas in
intellectual property. The teaching groups should establish relationships as soon as possible with enterprises, companies, legal departments, industrial-trade administration authorities, departments of culture and publication, etc. The teaching staff can learn a lot from communicating with such units and from counsel services to clients, particularly in the areas of copyright and trade marks which are rather fresh to the professors.

International exchanges and cooperations are being very beneficial to the development of the teaching staff. Now some key universities have already established a certain relationship with some law firms or universities abroad, which makes it possible to continue this exchange and cooperation in the long run. Some points which should be given attention to are as follows:

1. People sent abroad to study should be set with a proper goal, concentrating their mind on it, while absorbing a quite broad area of knowledge. But at the very beginning, these people only practised patent agency because of the lack of such experiences.

2. China has already aroused the initiative stage in the area of intellectual property. So it is not as effective as it used to be to invite foreign experts to deliver general lectures based on short programs. For example, to organize some aimed discussions with certain topics would be more useful.

3. With the improvement of the general quality of the teaching staffs as a prerequisite condition, those professors should be provided with the opportunity to participate in some relevant international academic societies or associations, such as the International Association of Protection for Industrial Property, the Licensing Executives Society and other international organizations, in order to obtain the latest materials and information and keep themselves informed with the latest developments in the area of intellectual property.

CONCLUSION

The teaching activities of intellectual property in China have their characteristics, and the composition of the teaching staffs is correspondingly different from that of foreign countries.

The teaching staff on intellectual property in the science and polytechnic universities have formed a live, flexible and self-improvable team.

There are some problems with the organizational structure and knowledge composition of the teaching staff on intellectual property in these universities.

The science and polytechnic universities may organize their own teaching groups of intellectual property in many flexible ways according to their respective conditions. Such organization should be conducive to teaching, research, as well as practice.

The teaching staff on intellectual property in the science and polytechnic universities should strengthen their contacts with departments engaged in practical work on intellectual property.

Various ways should be chosen for international exchange or cooperation in the area of intellectual property.