Chapter 8 Intellectual Property and Vietnam's Higher Education System

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Introduction

Many types of intellectual property (IP) are generated within Vietnamese universities and colleges. These include copyrighted works, such as scholarly books and articles, textbooks, written lectures and speeches, scientific works, and teaching-related software. Faculty members in the scientific disciplines create or discover various kinds of "industrial property," including inventions, utility solutions, industrial designs, trademarks, new plant varieties, semiconductor integrated circuit layout designs (computer chips), and business (or trade) secrets. In recent years, Vietnam has made significant progress in establishing laws, regulations, and international commitments to protect IP rights. As Vietnam's universities and colleges grow in research capacity and quality, academic authors and inventors will be responsible for a larger percentage of copyright registrations and industrial property filings than in the past.

This chapter will examine major challenges that Vietnam's higher education system faces in the area of IP. It is well-recognized by Vietnamese educators that IP has become an increasingly valuable source of revenue and prestige for universities and colleges. Because IP rights—particularly patents in technological and medical discoveries—confer legal monopolies that can generate significant revenue streams for a number of years, universities are devoting attention and resources to the creation, protection, and commercial exploitation of faculty-generated IP.

Four significant IP challenges confront Vietnamese universities and colleges. The first involves the need to develop, among faculty and students alike, a greater awareness of the importance of economic and moral IP rights in academic research. An understanding of the economic value of research, along with the obligations

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¹ Vietnam's Intellectual Property Law, effective as of July 1, 2006, protects many of types of works that might be created by university faculty. Other IP rights, such as those in new plant varieties, semiconductor chips, and trade secrets, are provided for by government decree.

of academic honesty, is a foundational prerequisite for the development of IP in universities. Related to this need is Vietnam's second challenge: the need to expand the teaching of IP in Vietnam, both in the general university curriculum and in preprofessional programs. The third challenge is posed by lingering confusion over the ownership of IP rights within Vietnamese universities. Until there is greater certainty about who is the legal owner of faculty-generated IP—whether faculty, the university, or the state—it will be difficult for universities to reap the full benefits of commercializing IP. The fourth and final challenge to be discussed is the need for Vietnamese universities and colleges to establish and enhance their internal business capacity to commercialize faculty-created IP. While some Vietnamese universities, such as Hanoi University of Technology (HUT), have created technology licensing offices (TLOs) to facilitate the transfer of IP to the commercial sector, many other universities have yet to do so. Without an efficient system of TLOs, the full benefits of university-generated IP will not be realized.

The IP Challenge for Developing Countries

Developing countries face an IP dilemma: on the one hand, they are urged to recognize the IP claims of developed nations and to adopt comparable IP laws for themselves; on the other, the IP rights system, as a whole, may be of questionable benefit to many developing countries in areas such as health, agriculture, education, and information technologies. According to the Report of the Commission on Intellectual Property Rights (2002), "IP rights can do little to stimulate invention in developing countries, because the prerequisite human and technical capacity may be absent. Moreover, they increase the costs of essential medicines and agricultural inputs, hitting poor people and farmers particularly hard" (Executive Summary, 1). The Commission urges developed nations to resist imposing procrustean IP standards upon developing countries. Instead, "the interests of developing countries are best served by tailoring their intellectual property regimes to their particular economic and social circumstances" (Full Report, 172).

A one-size-fits-all approach to the IP needs of developing countries would be illadvised. A thriving patent regime, for example, may provide incentives for academic research, but it can also create legal gridlock for researchers who need to make use of patented technologies in their work. Unauthorized use of copyrighted works—roundly condemned by developed nations—can be an important cheap source of learning in developing countries. As observed in the Commission's Report, "[M]any poor people in developing countries have only been able to access certain works through use of unauthorised copies available at a fraction of the price of the original" (2002: Executive Summary, 13). In Vietnam, it is common for university students to photocopy their professors' textbooks rather than to purchase them; faculty members know this and often excuse it on the ground of student poverty.²

² Interview with Dr. Nguyêń Thanh Hā, professor of economics and manager of the Center for Business Management at National Economics University in Hanoi, December 2005.

While this chapter makes a number of recommendations for enhancing IP in Vietnam's universities, it does so in the spirit of the Commission's Report, recognizing that what may be right for a developed nation may be wrong at this time for Vietnam. In the end, Vietnam must find a role for IP that fits its own educational needs and capacities.

IP in Vietnamese Universities: Challenges and Potential Solutions

Economic and Moral IP Rights

A fundamental challenge for Vietnam's higher education system is the need to develop a greater understanding of the importance of economic and moral IP rights in academic research. Economic rights are those entitlements, such as copyrights and patents, which derive from statutory sources and which confer the ability to control IP and to generate revenue. Moral rights, by contrast, are "personal" to the creator of a work. Secured by statute and consistent with Vietnam's international commitments, these rights include the right of attribution (or "paternity") and the right of integrity (ensuring against "distortion" or "mutilation"), enabling an author to protect the "honor" of the work and his or her role in it.³ Vietnam also recognizes certain moral rights in industrial property, such as patents. Legally compensable harm includes "spiritual damages" and "loss to honor, dignity, prestige, reputation and other spiritual losses".⁴

University faculty generally experience two types of motivation to engage in scholarship and research: reputational incentives and economic incentives. An academic's reputation and honor are threatened when his or her research is reproduced without permission and without attribution. Like their counterparts throughout the world, Vietnamese higher education institutions are vulnerable to plagiarism, widespread photocopying of textbooks and teaching materials, and other forms of unauthorized reproduction—particularly so in that Vietnam's IP laws are relatively recent, piracy of entertainment products in Vietnam is common, and popular understanding of intangible property rights is at an early stage. In addition, Vietnam's ambivalence, at this historical and political moment, about the privatization and commercialization of products of the mind, combined with traditional academic attitudes concerning "pure" research, poses obstacles to fully realizing the economic potential of academic research in Vietnam.

A forward-looking policy is required to address the challenges of moral and economic rights in Vietnam's universities. While some institutions have formal or

³ See Vietnam's Civil Code, Article 738, and IP Law, Article 19. In October 2004, Vietnam became a signatory to the Berne Convention for the Protection of Literary and Artistic Works, Article 6^{bis} of which prohibits "derogatory action" in relation to a work which "would be prejudicial to [an author's] honor or reputation."

⁴ IP Law, Article 207(1)(b).

informal "guidelines" concerning academic honesty and IP rights, a concerted effort should be made to adopt written honor codes and policies and require that students and academic staff agree to abide by clearly articulated principles of academic honesty and integrity. In addition, as discussed below, universities might establish programs for teaching IP concepts to faculty and students (including law students) and for emphasizing the significance of authors' rights. These measures would contribute to a climate of enhanced respect for authorship in the university and would likely help encourage academic authors and inventors to exert themselves to create more such products.

In addition to reputational incentives, the economic incentives of academics should be enhanced to encourage the production of research and scholarship. Academics in Vietnam are often not well compensated by their universities and therefore lack significant financial incentive to remain committed to research and teaching. If academics can be guaranteed some portion of the financial benefits to be derived from their writings and inventions, they will have a means of augmenting their income, reducing their dependence on outside employment, and spending more time on the core institutional activities of research and writing.

In some cases, of course, the IP created by academics within the scope of their university employment may be owned, in the first instance, by their university or (in the case of a public university) by the Vietnamese government. The copyrights in textbooks authored by academics may be owned by the academics' publishers. Such results would follow from the "work for hire" provisions contained in many of Vietnam's IP laws and regulations.⁵ These rules may be altered by contract or by statutory exception, however. For example, Vietnam's legal rules for contractual IP transfers and licensing permit flexible divisions of economic rewards between academics and their institutions.⁶ Other regulations enable authors of copyrighted works and inventors of patented discoveries to obtain royalties or other remuneration even after they have transferred or licensed the IP to others.⁷ Even small economic benefits, when added to the reputational benefits of scholarly prestige, can provide academics with strong incentives to improve and increase their research and scholarship. Many universities in developed countries have adopted policies that provide faculty inventors with a significant share of royalties from their commercialized discoveries, with the remainder going to the university or department.⁸

⁵ Work-for-hire rules provide that the owner of IP is not the individual who creates it, but rather the employer, governmental body, or commissioning party for which the IP was created. See Civil Code, Article 740.

 $^{^6}$ See Decree no. 11/2005/ND/CP of February 2, 2005 (replacing Decree no. 45/1998/ND/CP of July 1, 1998).

⁷ See, for example, Decree no. 61/ND-CP of June 11, 2002 of the Government on Royalty Regime (copyrighted works).

⁸ For example, Stanford University inventors receive one-third of net royalties from their licensed discoveries after administrative costs are deducted. See Stanford University Office of Technology Licensing, "Our Process," Section 8 (found at www.otl.stanford.edu/inventors/process.html (last visited October 13, 2007). In an interview conducted on December 15, 2005, Mr. Bay, Vice

The Teaching of IP in Vietnam

Related to the need for a greater general academic awareness of economic and moral IP rights is the second challenge: the need to expand and improve the teaching of IP in Vietnam. Currently, there is no training institution which is responsible for or specializes in the teaching of IP. Moreover, it is difficult to find a university or research institute that includes IP as a part of its curriculum. Although some aspects of IP are taught as an elective in certain law programs, there are no compulsory IP courses, and Vietnamese universities have not yet adopted the proposed 2005 ASEAN Common IP Curriculum and Syllabi Template⁹ or created positions for so-called "full-time IP-specialized" lecturers. Part-time IP-specialized lecturers are usually drafted from the National Office of Intellectual Property (NOIP), the National Office of Copyright, or IP law firms.

On December 12, 2005, Vietnam's President issued Order no. 28/2005/L/CTN concerning Vietnam's new Intellectual Property Law, which came into force on July 1, 2006. This new body of law mentions IP research and training only briefly and generally; reference is made, for example, to the state's commitment to giving "priority to investment in training, improving officials, civil servants, related people in the field of intellectual property rights protection and research, application of science and technologies for intellectual property rights protection" (Article 8, Section 4). Another provision requires the state to "train and foster a line-up of IP officers" and to promote the "education, propagation, popularization of knowledge of and law on intellectual property" (Article 10, Sections 3 and 8). Still another provision sets forth general qualifications for practicing as an industrial property agent and requires the government to make "specific provisions" for training, examining, and certifying industrial property professionals (Article 155).

To date, public management in the field of IP in general and IP research and training in particular has not been unified and is in need of more detailed elaboration. Although the new IP Law covers all aspects of IP and assigns the Ministry of Science and Technology responsibility for taking the lead in coordinating with other "IP ministries"—notably, the Ministry of Culture, Tourism, and Sports (formerly, the Ministry of Culture and Information) and the Ministry of Agriculture and Rural Development—the laws discuss the qualifications and training for industrial

Director of Education and Research at Vietnam's Patent Bureau, stated that the Department of Sciences and Technology had recently recommended that academic inventors receive 70% of royalties generated by their discoveries. In contrast, Professor Lam Quang Thiep of Vietnam National University in Hanoi, during an interview on December 9, 2005, stated that Vietnamese academic authors receive 10% of net revenues from sales of their books. This smaller percentage is generally consistent, however, with royalty percentages paid by book publishers to academic authors in many developed countries.

⁹ See materials at:http://www.ecap-project.org/activitiesevents/at_regional_level/eu_asean_collo quium_on_a_common_postgraduate_ip_curriculum_and_syllabi_template_for_asean_countries_ 17_18_august_2005_singapore.html (last visited October 27, 2007).

property practitioners only, as noted above. No comparable provisions exist for copyright agents, for example.

Some progress has been made in the teaching of IP. Recently, NOIP and Ho Chi Minh City Law University began cooperating to provide 6-month IP training courses for interested individuals who hold bachelor degrees. Certificates of completion satisfy one of the major requirements for becoming an IP practitioner. Enrollees typically include customs officers, market management officers, judges, and patent attorneys. In 2007, NOIP signed separate cooperation agreements with the Institute of Natural Sciences and Da Nang University, with the goals of promoting creative activities within the two institutions and raising awareness about IP assets and the importance of protecting them. This is only a start, however. Insufficient attention has been paid to designing and conducting IP training programs and introducing the subject of IP into the curricula of universities and colleges, which are regarded as official accrediting institutions, in contrast to the unofficial 6-month IP training program discussed above.

Clarifying Ownership of IP in Universities

A third challenge is lingering confusion over the ownership of IP rights within Vietnamese universities. In order to protect and exploit IP effectively, it must be clear who owns the IP in the first place. Yet it is not always obvious who owns the economic rights in IP produced within Vietnam's higher education institutions: Is it the individual who invented a new scientific process, the university that employs that individual, the government that owns and funds the university, or some combination of these? Despite the seeming lucidity of Vietnam's "work for hire" rules (discussed above), situations arise in which it is not clear whether an academic or postgraduate student created IP within the scope of his or her "duties" at the university, or whether those creative efforts occurred outside that scope. For example, if a researcher makes an important scientific discovery on his own time, perhaps with only incidental use of university resources and equipment, and without public or university funding, Vietnam's "work for hire" rules will not necessarily answer the question of who owns the IP.¹⁰

¹⁰ There exists a wide range of conflicting views about the ownership of IP in Vietnamese universities. Officials interviewed at Vietnam National University (VNU) in Hanoi in December 2005 believed that patent rights are owned by, and registered in the name of, VNU inventors. Yet a Patent Bureau official stated in the same month that patents created at public universities are usually owned by the universities, and that non-public universities typically settle this question by contract. During an interview in December 2005, Dr. Nguyễn Minh Hệ, Vice General Director of the Polytechnology Company at Hanoi University of Technology, stated that when funding for research comes from the university or the state, ownership of IP resides both in the university/state and in the individual author. The apparent inconsistencies here may result from conflicting assumptions about what IP "ownership" is. For some interviewees, "ownership" seemed to relate to the moral rights in a work, as opposed to the economic rights.

Certainty as to ownership of IP rights is essential. Not only does clarity of IP ownership assist with internal administration of the products of research and scholarship, but clear title is also necessary for registering IP with the appropriate government agency and, critically, for transferring the IP to the private sector for commercialization. Vietnam's regulations concerning technology transfer contracts also require a clear identification of the owner of the technology to be transferred. As Vietnamese academics generate more research and discoveries which attract the commercializing energies of domestic and foreign business partners, it will be critical that university policies and contracts be adopted to eliminate ambiguity as to IP ownership.

A key step is deciding who should be the proper legal owner of university-generated IP—especially of potentially lucrative patents. Neither scholars nor governmental agencies are well suited to the task of administering and exploiting IP. Academics rarely have time, aptitude, or funds for the burdens of business, and public bodies lack flexibility and efficiency to pursue the commercialization of research products. This means that the university itself should often assume the tasks of owning, protecting, and exploiting IP created by academic staff. To do so effectively, Vietnamese universities and colleges must establish or strengthen their legal capacity to own research-generated IP and, when necessary, to prosecute or defend lawsuits or initiate administrative proceedings to protect the IP.

A university may own IP (like any other asset) as a function of its general status as a business entity, under the appropriate enterprise laws. Alternatively, a university with a developed technical program may wish to set up a separate though affiliated company or companies for the specific purpose of owning and administering faculty-generated IP. This has been done with apparent success at HUT, as discussed below. A highly successful example of a separate university-owned company for owning and administering faculty-generated IP is Oxford University's "Isis Innovation," a wholly owned technology transfer company founded in 1988 to pioneer the commercial exploitation of academic research and invention. ¹²

Establishing a separate business entity for the exploitation of university-generated IP has several advantages. In contrast to the general university, a separate IP-dedicated company can more rapidly administer IP and speed its commercialization, thus encouraging academic research and transferring the products of that research efficiently to the private sector. Universities that quickly and successfully market academic discoveries become identified as serious, cutting-edge institutions for research, scholarship, and technology. Such high-profile universities have better success in obtaining research funding from external sources, in attracting the best students, and in recruiting the most accomplished faculty from within and from outside the country.

¹¹ Decree no. 11/2005/ND/CP of February 2, 2005.

¹² See Oxford University, "Knowledge Transfer" (2005), found at www.ox.ac.uk/innovation/spin. shtml (last visited October 13, 2007).

Capacity to Commercialize IP: Technology Licensing Offices

A fourth challenge is the need for Vietnam's universities to establish and enhance their internal business capacity to commercialize faculty-created IP. While some Vietnamese universities have created TLOs to facilitate the transfer of IP to the commercial sector, many other universities have yet to do so. By contrast, TLOs in South Korea and the United States have been widely adopted and have achieved a high level of sophistication and efficiency (Moon, 2004; Park & Park, 2003). The proper deployment of TLOs can build needed business efficiency and focus into the university structure and can enhance the goal of commercializing faculty-created IP and realizing IP-related revenues.

A TLO has operated for a number of years, with apparent success, at HUT. This TLO, currently referred to as the Polytechnology Company (the Company), administers the transfer of HUT-generated technology to the private sector: "Fully backed up by HUT, [the Company] is capable of undertaking successfully economic/technical contracts, technology transfers, research and development programmes of high quality products, and scientific services" (HUT, 2002: 5). The Company's precise role in the various phases of technology transfer is not entirely clear, beyond serving "as an advisory body to the HUT rector and management board in planning the transfer of technology" and being responsible for "technology transfer in accordance with guidelines of the Party and the laws" (HUT, 2002: 2–3). As of 2002, the Company had a staff of 25 employees at its main office, and a total staff of 850 at its various "member units," including faculty and "leading scientists" who served as consultants (HUT, 2002: 5).

HUT's Company administers technology products developed by it own faculty, as well as technology products imported from foreign countries. Some of these products are protected by patents; others are not. When a patent is sought for a product, the Company sometimes assists with the application process, but apparently does not always play a central role. Among other functions, the Company seeks feedback about products from the private sector and from consumers, and reports this feedback to HUT faculty who developed the products. The Company was formed under Vietnam's enterprise laws and enjoys its own legal status. ¹⁴ Information about the number of technology products transferred to the private sector by the Company, or about its revenues, has not been obtained. Nor is it known how comprehensive the Company's technology-transfer services are, or how efficient the Company is at commercializing technology products. It is reported that few Vietnamese universities have TLOs for administering and overseeing the commercialization of faculty-generated IP.

¹³ See Stanford University Technology Licensing Office, "What We Do," found at www. http://otl. stanford.edu/flash.html (last visited October 13, 2007).

¹⁴ This information was obtained during interviews with Dr. Nguyn Minh Hệ, Vice General Director of the Company, and Mr. Bay of the Patent Bureau, in December 2005.

To maximize efficiency, TLOs in Vietnamese universities should be responsible for the following, at least:

- obtaining and recording written disclosures of faculty discoveries and inventions;
- meeting with the faculty inventor, performing a feasibility assessment of the discovery or invention, and, if appropriate, creating a preliminary licensing strategy;
- obtaining necessary IP protection titles and registration certificates for promising discoveries and inventions, perhaps with the assistance of an outside IP attorney;
- identifying potential licensing partners in the commercial sector (using nondisclosure or confidentiality agreements to carry on any discussions with those potential partners);
- negotiating and concluding a licensing agreement with the chosen business partner;
- ensuring compliance with Vietnam's regulations concerning technology transfer contracts, where appropriate;
- monitoring the performance of the business partner by requiring periodic reports; and
- obtaining feedback from the commercial sector and from consumers so that faculty can improve their research and the TLO can improve its procedures.

International Agreements to Which Vietnam is Signatory

Vietnam has signed a number of international IP agreements, but its first order of business has been to improve its own legal system in general and its IP regime in particular. Vietnam has taken a major step by recently updating its laws. The chief enactments relating to IP include the following: the Civil Code of June14, 2005 (effective January1, 2006), which replaces the Civil Code of October 28, 1995; the IP Law of November 29, 2005 (effective July 1, 2006), which provides for copyrights, neighboring rights, industrial property rights, rights in plant varieties, and the enforcement of these rights; Decree 103/2006/ND-CP (September 22, 2006), which implements provisions of the IP Law relating to industrial property; Decree 105/2006/ND-CP (September 22, 2006), which implements provisions assisting the enforcement of IP rights and state management of IP; and Decree 106/2006/ND-CP (September 22, 2006), setting forth administrative sanctions for the infringement of industrial property.

As for international treaties, Vietnam is a member of the Paris Convention for the Protection of Industrial Property (as of March 8, 1949); the Madrid Agreement Concerning the International Registration of Marks (March 8, 1949); the Convention Establishing the World Intellectual Property Organization (July 2, 1976); the Patent Cooperation Treaty (March 10, 1993); the Berne Convention for the Protection of Literary and Artistic Works (October 26, 2004); the Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication

of Their Phonograms (July 6, 2005); the Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite (January 12, 2006); the Madrid Protocol for international registration of trademarks (July 11, 2006); and the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (March 1, 2007).

Vietnam has also sought to strengthen institutions that administer and enforce its IP laws. Although Vietnam is a developing country that does not yet produce significant IP and is a net consumer of IP generated by other nations, the Vietnamese government has been active in ensuring that its IP laws are effective, especially in the fight against piracy and the illegal use of consumer products, music, and software. On February 22, 2007, the Prime Minister of Vietnam issued Instruction no. 04/2007/CT-TTg to enhance protection of computer programs. The instruction states that its main purpose is to ensure strict compliance with Vietnam's laws and its commitments to international treaties for the protection of computer software. Designated ministries are assigned specific tasks: the Ministry of Finance, for example, must prepare a budget for purchasing licensed computer programs for government agencies, and the General Department of Customs must closely monitor the import and export of computer programs.

The Task Ahead for Vietnam

As Hayden and Lam have explained (2007: 79), "there will be a huge transformation of the higher education system in Vietnam over coming years. Central to this transformation will be the emergence of institutional autonomy." As Vietnam seeks to infuse its higher education institutions with greater autonomy and to reduce central control by the state, "higher education institutions will need to have a capacity both to determine their own goals and programs and to determine how their goals and programs will be pursued" (Hayden and Lam, 2007: 80). Critical for this nascent institutional autonomy will be "academic freedom, individual academic autonomy, institutional sovereignty and institutional self-determination" (Hayden and Lam, 2007: 84).

IP can play a significant role in furthering the institutional autonomy of Vietnam's universities. By its very nature, IP presupposes a recognition of individual intellectual effort and the right to receive economic rewards for such effort. Vietnam's IP regime, like that of many countries, is fundamentally incentive-based. A property right which is limited to a certain durational term (in the case of Vietnamese copyrights, for example, the author's life plus 50 years) is offered as a way of inducing creators to take the trouble to create. The temporary monopoly that is granted to the creator, or to the creator's employer, represents a vehicle for capturing economic benefits. The more useful or ingenious the creative product, the more valuable and plentiful will be the economic rewards that the product can attract.

The institutional process of creating, protecting, and exploiting IP is a quintessential example of financial self-management, decentralized authority, and autonomy,

and embodies important lessons in free-market values and practices. IP protection furthers these objectives by rewarding individual and institutional initiative with distinct economic benefits, but only if that initiative succeeds in attracting the commercializing energies of the private sector, and then results in a benefit to the public. Equally important for universities that are seeking autonomy and credibility, the creation and exploitation of IP by faculty afford a significant opportunity for a kind of quality assurance that is both concrete and measurable. In order to be successful as commercial products, the discoveries that result from academic research and scholarship must first qualify as IP—patents, business secrets, trademarks, copyrights—and be approved for registration by the relevant government agency. Once the technology is protected as IP, it is ready to be tested by the competitive rigors of the marketplace. If it passes that test, the creator and his or her university stand to receive tangible financial rewards as well as justified academic prestige. The process of protecting and exploiting university-generated IP thus allows an important measure of quality assurance to be built automatically into the core activities of the university. The concrete realities of the commercial sector serve as one reliable measure and guarantee of academic achievement.

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