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UNDER THE PATRONAGE OF HIS HIGHNESS SHEIKH HUMAID BIN RASHID AL-NUAIMI

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INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE

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INTRODUCTION

A. PATENTS
   1. Incentive to Disclose
   2. Incentive to Invest
   3. Incentive to License

B. TRADEMARKS
   1. Incentive to Maintain Quality
   2. Incentive to Franchise

C. COPYRIGHT
   1. Incentive to Create
   2. Incentive to Disseminate

D. Basic Principles of International Law

   1. Expropriation without Compensation
   2. No Governmental Decision on R + D Priorities
   3. Consumers' Protection

CONCLUSION

INTRODUCTION

1. When studying the impact of intellectual property on the development of nations and the transfer of technology, the famous motto of "the invisible hand" always comes to mind, as for most success stories. There is no absolute proof that intellectual property really increases the rate of economic development and international trade, as there is no proof that the private ownership of capital assets really led Japan and the Western world to their economic supremacy over the former Socialist countries. There can be no physical proof for the effect of law because laws are as patents, copyrights and trademarks, intellectual realities. The impact of any law is difficult to establish in a micro-sociological, let alone in a macro-economic view!

2. Therefore, there are only reasonings which may or may not turn out to be persuasive. Still, the endeavour is worthwhile, because the intellectual property being new in most legal orders, diplomats, public servants, lawyers and judges have to convince the population that intellectual property has to be protected. It is the case of a few inventors, authors, performers and industries against an immense majority of consumers and a small array of competitors who would like to infringe on their rights. It is always David vs Goliath, the young, innovative and fit warrior against the powerful, conservative, giant crowd of users.

3. There are two approaches to stress the unique necessity of protecting arts and techniques. First, the Anglo-American theory is based on a purely utilitarian doctrine, which was already obvious in the Statute on Monopolies of James the First in 1624, or Queen Anne's Statute on Copyrights of 1710. This culminated in Article I, sec.8 (8) of the U.S. Constitution stating that Congress shall have power

"*to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries*".

4. However, the French Declaration of Human Rights, later followed by the Universal Declaration of Human Rights of 1948 and the Economic and Social Covenant of the United Nations of 1966 rest on a different premise: the progress of mankind requires the fullest respect for the inventors and authors because they are worthy of protection as everyone is for his or her freedom, his or her privacy and his or her integrity. Inventivity and creativity are the features of all mankind, and all individuals may request at any time to enjoy the natural right to have an exclusive right in their inventions or works of art.

5. The French approach has fueled the development of intellectual property all over Europe. Nevertheless, the TRIPs have followed the utilitarian approach to intellectual property, because of the predominant Anglo-American pressure to complement the GATT by specific measures on intellectual property.

6. Therefore, it would be best to follow both lines of argumentation when enquiring about the positive and negative effects of intellectual property. However, we shall here review the utilitarian arguments, without turning to the human rights approach.

7. It appears useful to distinguish between the various areas of intellectual property rights. A common listing of those rights might encompass the 10 following subject matters protected under TRIPs and other multilateral conventions:

- patent for inventions;
- design and model, both ornamental and utility models or "petty patents";
- plant variety;
- semiconductor topographies or "chips";
- trademarks and trade dress;
- geographic indications;
- unfair competition;
- copyrights;
- neighbouring rights such as broadcasters' rights, performers' rights and phonogram producers' rights;
- trade secrets.

Here, we shall focus on the three categories of patents for invention, trademarks and copyrights which are most important for the international trade.

A. Patents

8. The patent system is credited with three major functions. It provides incentives to disclose a new invention, to invest in research for further inventions, and to offer licence to third parties on technologies new and old.

1. Incentive to Disclose

9. The very first patent law, that of Venice of 1474, said that provisions have to be made so that in case of "*works and devices discovered (by) men of great genius, apt to invent and discover ingenious devices*", "*their honor be not taken away from them by people who would have seen the inventions*"[1].

10. At the outset, we see that the first and foremost concern is to protect inventors against those who would see and copy the invention. We shall come back later on the notion of "honor to be taken away". It is important first to underline that the patent is a shield against secrecy:

To the extent that I have a patent, I can show the invention, expose it to the view of third parties; e.g. in an exhibition. It is a well-known occurrence in many industries that new machines to be exhibited in international professional fairs give rise to request for patents within 12 to 18 months before the fair. To the same extent I can also show my invention to a licensee or a subcontractor.

11. Further, the manufactures that have a proven record of patenting the bulk of their inventions are producing outputs as diverse as e.g. pharmaceuticals, agricultural

[1] Patent law of Venice, *in* Scritti di diritto industriale per il suo 500 anniversario, edited by AIPPI, Milan 1974.

chemicals, synthetic rubber, glass, compressors, and power-driven tools[2], to which computer software should now be added, as well as telecommunication equipments. The common denominator of such products is that most inventions in those industries can be reverse engineered, or decompiled for software. Therefore, it is difficult to maintain secrecy when putting the invention on the market.

Moreover, the industry can benefit from the wealth of information accumulated in the patent system. We have to remember that 80% of the published technological knowledge of our world is published only once, and that is in a patent. There have been more than 30 millions published patents! Companies specialize in monitoring the patents useful to a SME.

2. Incentive to Invest

12. Each patent grants an exclusive right for a limited number of years. The patented product sells for a higher price since there should be less competition, until someone invests to invent around the patent. Therefore, there is a double incentive: the patentee will reinvest in R + D to try and maintain his headstart over the competitors. The competition will try and catch up with him, or they will take a license. The whole technological environment accelerates. Thus, there is a strong correlation between the rate of patents sought by enterprises and the general level of economic developments, as it has been shown by Erich Kaufer comparing the number of patents issued in 1967 and 1980: "*The number of patents issued within a nation tends to rise with the size and the level of economic development*". Further, "*the larger the nation and the higher its level of economic development, the smaller is the share of its patents foreigners obtain*"[3]. In the foreign markets, however, active nations get an increased share of the national patents. Hall also provides details of the change in the number of US patents granted to various countries between 1985 and 1998. These are 121.6% for Canada, 53.1% for

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2 See E. Kaufer, The Economics of the Patent System, Chur, London etc., 1989, p. 22.

3 See, E. Kaufer, p. 16 with statistical tables, p. 17. For an overview of more recent statistics, see P. Dixon and Ch. Greenhalgh, "The Economics of Intellectual Property: A Review to Identify Themes for Future Research", Oxford Intellectual Property Research Centre Working Paper Series N° 5, November 2002.

France, 35.4% for Germany, 72.1% for Italy, 142% for Japan, 42.9% for Sweden, 38.9% for the UK, and 103% for the US.[4]

3. Incentive to Licence

13. Finally, companies are reluctant to transfer their technology when they are active in one or two lines of products. When they are diversified, they may engage more readily in exchange of licences. Sometimes, licensing is also seen as a welcome substitute to direct local investment or to direct marketing through export. The common range of royalties when a third party gets a licence and works the invention for the licensor is between 20 and 50% of the benefits generated by this technology on the licensee's market or markets[5]. Therefore, the patent plays an essential role by furthering the willingness to enter into a licence agreement. First, it allows for a longer life of the license, which may last the whole duration of the initial patent and continue under follow-up patents. Second, it gives the patentee an array of weapons that the contract may not be endowed with. Specifically, to use a technology outside the grant of the license is to commit an infringement, which may give rise to the remedies against patent infringement, sometimes swifter and harsher than contractual remedies. As the licensor has to be decided by good arguments to trust the licensee, the patent system helps the transaction by having the patent and the courts act as watchdogs. Licensing Agreements in turn helps further international trade, mainly because buy-back agreements are often entered into simultaneously.

B. Trademarks

14. Basically the same points can be made about the trademark system. It helps support the distinctiveness of the products, and it is an incentive to franchising and trademark licensing.

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4 B. Hall, "The Assessment : Technology policy", Oxford Review of Economic Policy Vol. 18, N° 1, Spring, 2002 pp. 1-9.

5 E. Kaufer, p. 39; see also Besso/Janiszewski, Remuneration in Technology Transfer (1982 Licensing Law Handbook, pp. 3 ff.).

1. Incentive to Maintain Quality

15. No product of some worth will be bought by consumers if it does not bear a trademark. The trademark warrants that the product comes from a given corporation, or is marketed under its control. There is an expectation of continuing quality: how could someone buy a BMW or a Mercedes which would not bear any trademark? Even maintenance is guaranted by a network of recognized dealers that the trademark allows to identify. The monitoring of their services and of licensed SME results in an important transfer of technology, e.g. in sampling, analysing the samples, controlling quality, etc. Of course, geographic denominations are also important in that respect, and they are more and more regarded as a necessary tool for the development of trade in agricultural products.

2. Incentive to Franchise

16. The selective dealership agreements can in more day-to-day business make place to franchise networks. Those highly value-developing networks are unthinkable without a trademark. What would be Benetton or Mac Donald's without trademark law? In my view, this is the most important contribution of trademark laws to the welfare of the consumers and the wealth of nations through trade.

C. Copyrights

17. The copyright law should not be seen only in a utilitarian fashion, since it really rests on the most basic instinct of recognition of authors and performers. Still, in a materialistic approach, it may be said that copyright furthers the creation as well as the dissemination of literary, scientific and artistic works.

1. Incentive to Create

18. The days of the isolated author are not yet counted. There has been, there is and there will be in the future individuals imaginatively and originally working alone on their PC, or with their brush and paint. However, the media give rise to more and more costly products, because they have to reach to the largest market. The investment for a normal

movie may be from tens of million dollars up to 180 million for "Titanic", and yearly 1 movie out of ten is said to be really paying for the 9 other ones.

19. Now, the return on investment is high when the movies are successful. The exclusivity of their returns is kept to the producers and their bankers by the distribution agreements. The real sword of Damocles pending on pirats and unfaithful distributors is the action based on copyright. In other areas such as music, Internet allowed an important infrigement of the exclusive rights of the phonograms producers, with the result that in 2001-2002 the sales were down by approximately 12%, which of course means that the creators will receive less means for recording new albums. The cultural life also suffers, because major labels have less means to invest in the so called serious, classical music. But chiefly hurt is the international trade in cultural goods and leisure industry.

20. There is a gap between the technical progress and the content, in other words between the hardware (including programs) and the software (all that is created through the human brain). Only an army of artists and text writers can bridge that gap. This is not new. The kings of the Renaissance encouraged artists and all of a sudden, there was more high quality art being created in more remote places than ever before. Nowadays, Society has taken over the role of kings and princes, and there is a tax payed by all consumers to further creation. The so-called "royalties" allow to divert money from fruitless consuming to fertile creation. Copyright requires originality, because without originality, how could the act of copying be established, save exceptional circumstances?

2. Incentive to Disseminate

21. Internet will be the main channel for movies, books and music distribution. There has to be a way to ensure that the royalties accrue to the companies taking the risk to publish books, music and movies.

22. In my view, the tax levied on each machine allowing to record DVD and download protected contents should be administered by collecting rights societies. The individual

site that music right holders opened have not worked until now to the satisfation of consumers. On the long run, however, it is certain that the public has to finance the creation of art and entertainment by the legitimate copyright owners through appropriate payment.

23. A utilitarian approach may miss the mark if it does not take into account the particular nature of creativity. It is linked to the psyche, to the human spirit. Nobody can be forced to invent, and almost no artist can work without retribution. This dual nature of creating intangible values is mirrored by the dual nature of the legal regime. Besides the utilitarian argumentation, the human right approach is likely to appear as idealistic. However, it is a tribute to the courts of law - and to the lawyers who prepare their case - that in some countries more than half the published cases concern so-called moral rights. It shows that the artists, writers and filmmakers often need a indication of their unique role and sensivity as much as a few more dollars. The brain drain issue has rendered governments and private corporations attentive to the fact that scientists and engineers need a favorable environment to make inventions, and develop superior know-how. If some States seem to attract more gifted people and in larger numbers, it can be attributed to a variety of reasons, among which the recognition of their value. A knowledge-based society will necessarily show more appreciation for the inventivity and the dedication to research. Then, a concentration of scientists and engineers in one area will lead to more attractivity; they will be more likely to stay where informal exchanges are common. Intellectual property plays a role in reassuring them that no misapropriation will take place, but intellectual property and inventors' rights are also a token of appreciation given by the society to the community of scientists and engineers.

Now, I should pass briefly on the main principles of international law relating to intellectual property.

D. Basic Principles of International Law

1. No Expropriation without Compensation

24. The very first principle about technology is that it is not in the public domain when it is new. The technology belongs to the innovator. Of course, some funding can come from the State or its agencies. Then, the State or its agencies may impose a given scheme under which licences will be given out to certain conditions. Absent a public funding, however, private innovations and inventions do not belong to the public domain. But Western States finance only between 20 % and 35 % of R + D expenditures, a share decreasing with privatization of public entities.

25. Conversely, if some invention is already declared to be in the public domain, there is little incentive for researchers and industries to pursue industrial application of the knowledge accessible to everybody. This has been shown time and again, the last example being the high density lipoproteins, a substance which can help prevent cholesterol deposits in arteries. It is only when Pfizer had acquired a patent on a mutant form of HDL called apo A-1 Milano that expensive clinical research could start[6].

26. In countries which are desirous to foster technological research, the first guarantee to offer to the pharmaceutical industry or any other knowledge-based industry is therefore to ban expropriation without due compensation. Art. 39 para. 3 TRIPs extends that protection to trade secrets which are disclosed to public administration in the process of approving the marketing of medical substances. The exception for public matter in case of urgent circumstances shows that in normal circumstances, the State cannot expropriate knowledge without due compensation.

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6 Le Temps (Geneva), 11 November 2003, p. 32.

2. No Governmental Decision on R + D Priorities

27. Apart from the basic principle that intellectual property is property within the guarantee afforded by constitutional law, the fact that a State cannot expropriate intangible assets has a functional consequence: the allocation of resources is on the whole decided by the private industry. Of course, a government can engage in strategic endeavours such as the Star War program. However, the applied research is more fruitfully channeled where the industry feels it to be needed. The failure of the Socialist economies to overcome the crisis induced by the first energy crisis starting in 1973 is a good example that formation of capital - of technological capital, for example – is best left to the diverse actors of the economy – including the State as tendering for goods and services. No centralized bureaucracy appears to be apt to set R + D priorities, probably because of the difficulty to centralize information on what is really needed. International trade allows a better allocation of intellectual assets as well as of physical production facilities.

28. In this regard, the notion of "national technological patrimony" sometimes appears in private discussion. To some minor extent, it also played a role in the systems of administrative monitoring of transfer of technology that where current in the 80's in Latin America, Asia and some African countries[7]. Most typical was the Brazilian legislation (e.g. Resolution N° 22 of 1991) that gave a wide power of control in opportunity to the National Institute of Intellectual Property and was finally abrogated by the Regulatory Act. 135/95 in 1995.

29. The common feature of a majority of those approval and registration schemes were that the industry understood them as a brake applied to the transfer of technology. The legislatures were well intentioned, and the bridles put onto party autonomy helped to weed out horrendous practices. Nowadays, the competition law appears more appropriate, nonetheless, to fight individual poor behaviour of a licensor than a general registration scheme.

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[7] See generally B. Dutoit & P. Mock, Le contrôle administratif des contrats de licence et de transfert de Technologie, Genève 1993, 398p.

30. The European Union has abolished all prior contract control in the transfer of technology area. Further, as far as the control of mergers has been introduced, it is accompanied since 1973 by the practice of requiring litigations concerning the intellectual property to go to arbitration, which is a clear choice towards privatization of disputes and avoidance of little effective, bureaucratic procedures.

3. Consumers' Protection

31. As intellectual property seems to differenciate between markets, whereby the highest spending nations have an increase in consumers' capacity to buy high priced good, the trendy luxury items are the ones which appear to be most in need of legal protection. Trademarks do play an important role for the mass of consumers buying day-to-day items. We already know it because the teenagers put some weight on bearing T-shirts, caps, sweaters etc. of a given brand. It is a sign of recognition, of belonging to a gang or a group. Trademarks are, for the best or the worst, a help to self-definition of throngs of people.

32. This is something that no utilitarian approach will ever explain, but the appeal of trademarks fuels the commerce, the advertising industry, therefore the media, and ultimately the brands shape the daily life of a good half of the world's population. One may despise this addiction to the trademarks, but it shows that intellectual property here protects the consumers against counterfeiting, as much as the producers, and favors international trade.

CONCLUSION

33. It should be mentioned that IP Rights have a further beneficial interests for most countries: the introduction of IP rights leads to the training of highly creative attorneys and judges dedicated to learning and to understanding one of the fields of law most complex, yet most turned to the future; for example, patents used to be for invention in industry; now they apply to software and biotech. It is in itself formative of the courts and the Bar. And this can also immensely help the South to receive technology on good contract terms. Expertise is needed for that, and the legislature can foster it by imposing to courts the duty to track intangible assts in all its various stages of counterfeiting.

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