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A LINGUISTIC STUDY OF THE DISTINCTIVENESS OF A **TRADEMARK**

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ABSTRACT

This article investigates the distinctiveness of a trademark from the perspective of linguistics. Recently, the high-profile case of the trademark "MISS WU" sparked a chorus of disapproval among the public. Claiming that the mark is too generic since "Wu" is a fairly common surname in Taiwan and cannot be exclusively associated with the designer Jason Wu, the Intellectual Property Court (IP court) rejected the trademark registration. Given the surprising furor over the rejection of a trademark, it is clear that the general population does not fully understand the official meaning of a trademark. Since linguistics is an ideal approach when examining the merits of an application to register a trademark, we will employ a mixture of linguistic approaches, including phonetics, corpus linguistics, and semiotics, to analyze whether or not "MISS WU" is distinctive. The history, categories, distinctiveness and regulations related to trademarks are introduced to clarify the picture of trademarks.

Keywords: Trademark, distinctiveness, linguistic approaches, semiotics, sign

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I. Introduction

When a company plans to introduce a new product, it selects a name or slogan for the product, and then registers that name with the trademark office. On occasion, the name or slogan will not be approved by the trademark office, primarily because it lacks distinctiveness. One of the principle requirements for a mark to be eligible for trademark registration is distinctiveness, which means that the mark enables consumers to distinguish the product manufactured or sold by a source from products sold by other sources.

Recently, the rejection of Jason Wu's registration of his trademark "MISS WU" aroused a frenzy of criticism and discussion among the public. Jason Wu designed First Lady Michelle Obama's gown for President Barack Obama's first and second inauguration balls. The Taiwan Intellectual Property Office (TIPO) rejected his application, and the Taiwan Intellectual Property Court (IP Court) later affirmed TIPO's decision, stating that the mark is too generic because "Wu" is a fairly common surname in Taiwan and cannot be exclusively associated with the designer Jason Wu. Put simply, the mark is devoid of distinctiveness.

Many people questioned the reasoning of the court and criticized its standards. In particular, people in the fashion industry in Taiwan were outraged by the court's audacity in rejecting an application for registration of the mark, which has been successfully registered in the United States and many EU countries. Some people even wondered why marks such as "Fei-tai-tai (Mrs. Fei)" or "Dr. Wu" were approved for registration but other similar marks were rejected. And if someone as renowned as Jason Wu could not get his trademark registered, then who is entitled to register a trademark? People began to doubt the entire process of registering a trademark.

Disputes concerning trademark protection involve linguistic issues. Is the mark sought for trademark registration distinctive? Is the mark similar to other registered trademarks for similar products or product categories? Do they look similar? Do they sound similar? Do they have similar meanings?² These questions can also be raised during trademark enforcement.

Since numerous issues concerning trademarks have a highly linguistic nature, we will employ a mixture of linguistic approaches, including semiotics, to examine the mark from its shape, sound and meaning to determine whether the mark "MISS WU" is sufficiently distinctive. To clarify the distinctiveness of the mark, the principles of trademark law and linguistic approaches analyzing the phenomena of trademarks will be introduced to investigate the factors considered by the TIPO and IP Court when deciding the case. Moreover, we will also examine the reasoning and

¹ See ROGER W. SHUY, FIGHTING OVER WORDS: LANGUAGE AND CIVIL LAW CASES 168 (Oxford University Press 2008).

² See id.

ruling held by the IP Court to see whether they are tenable.

II. The History of Trademark

The marking of goods to distinguish them from similar goods offered by other traders, can be traced back to the dawn of history. From the earliest recorded history, humans have used marks to claim ownership, either as the owner or as the manufacturer. Since the origin of trademarks can be researched back to the beginning of the circulation of goods, it is plausible that primitive humans used marks to indicate the ownership of livestock. Eventually, marks were employed to proclaim the maker of goods and their guarantee of the quality of their product. The history of marks is nearly as old as humanity.³

People began to consider marks, which had become representative of a trader's goods, as a type of property in themselves, during the 19th century. The right to take legal action against the infringement of a trade mark, even when the infringer had made an honest error, developed in the middle of the 19th century. However, the effectiveness of the lawsuit was hampered by the obligation for a trader to demonstrate that the mark under dispute did indicate his goods, and that he had previously claimed ownership of the mark.⁴

Despite of the early introduction of marks or trademarks, the official laws regulating trademark usage did not come into being until the late 19th century or early 20th century in most countries. Promulgated and enacted in 1930, the Trademark Law of Taiwan has undergone more than ten separate amendments during the past few years. With the emergence of the trademark law, the rules regulating trademarks gradually started to take shape and to evolve with the times. Trademark law can be viewed as an attempt to enforce its own policy concerning language. According to the legal community, the battle over ownership of words or expressions is authorized by trademark laws.⁵

III. The Distinctiveness of Trademark

The term "distinctiveness," defined in Paragraph 2 of Article 18 in the Trademark Act of Taiwan, refers to the character of a sign capable of being recognized by relevant consumers as an indication of the source of goods or services, thus distinguishing goods or services of one undertaking from those of other undertakings. The critical factor in trademark protection is

³ *See* Intellectual Property Office of the UK, *History of Trade Marks*, http://www.ipo.gov.uk/types/tm/t-about/t-whatis/t-history.htm (last visited Apr. 18, 2013).

⁴ See id.; see also ALISON FIRTH, GARY LEA & PETER CORNFORD, TRADE MARKS: LAW AND PRACTICE (Kristin, Lingren 2012).

⁵ See ROGER W. SHUY, LINGUISTIC BATTLES IN TRADEMARK DISPUTES 2 (Houndmills, Palgrave Macmillan 2002) [hereafter SHUY, TRADEMARK DISPUTES].

distinctiveness, and differentiation is the essential ingredient of distinctiveness, which is impossible to exist if the difference is not clearly visible. The utmost prerequisite of a mark to be granted trademark registration by the IP office is that it is distinctive. "The whole purpose in registering a mark is to assert that the mark represents a unique good or service. Uniqueness is essential when distinctiveness becomes real and materialized. The mark signals to consumers that the product represented by it is different than another product with a different mark."

To the layperson, trademarks are names, slogans or logos attached to products, but in the field of trademark law they represent much more than mere slogans. Serving as a "language of commodities," trademarks are employed by legal professionals when dealing with trademarks to interpret that language and comprehend the significance of those commodities. 8

The degree of the distinctiveness of a trademark varies with the nature of the mark. There are four general categories of trademarks: 1) arbitrary or fanciful; 2) suggestive; 3) descriptive; and 4) generic. Commonly known as the Abercrombie classification, the taxonomy was established by Judge Friendly in the 1976 case of *Abercrombie & Fitch v. Hunting World*. From the viewpoint of semiotics, the Abercrombie classification ranks marks according to the degree to which their signifiers are, "motivated" by their referents; the more motivated the signifier, the less intrinsically distinctive of source it is. The following section gives a brief introduction of each category in descending order of their strength level of distinctiveness.

A. Fanciful or Arbitrary Marks

Fanciful marks, also referred to as coined marks, are invented or designed for the purpose of functioning as trademarks. Fanciful words are ones that are either entirely invented in the language or are fully removed from current common usage. Examples will be KODAK for photographic equipment, EXXON for gasoline and oil, and XEROX for photocopying equipment. Fanciful marks are considered the strongest of all marks because they possess sufficient novelty to leave a strong impact on the mind of the

⁹ Abercrombie & Fitch Co. v. Hunting World, Inc., 537 F.2d 4 (2d Cir. N.Y. 1976).

http://marklaw.com/trademark-FAQ/strength.htm#Eg (last visited Aug. 8, 2013).

⁶ Elizabeth Karnezos, *Trademarks: A Social Perspective*, in THE SEMIOTICS OF LAW IN LEGAL EDUCATION 205, 206 (Jan M. Broekman & Francis J. Mootz III eds., 2011).

⁷ Winfried Nöth, *The Language of Commodities Groundwork for a Semiotics of Consumer Goods*, 4 INT'L J. OF RESEARCH IN MARKETING 173 (1988).

⁸ See Karnezos, supra note 6, at 206.

¹⁰ See Barton Beebe, A Semiotic Analysis of Trademark Law, 51 UCLA L. REV. 621 (2004).

¹¹ See Legal Strength of Trademarks,

¹² See Roger W. Shuy, Using Linguistics in Trademark Cases, in THE OXFORD HANDBOOK OF LANGUAGE AND LAW 449, 453 (Peter Tiersma & Lawrence Solan eds., 2012).

buyers. 13 Therefore, fanciful marks are accorded the highest level of protection because they lack any individual meaning outside of the trademark. On the other hand, arbitrary marks employ existing words to convey meanings that are very different from their usual senses. Examples include SHELL for gasoline oil, CAMEL for cigarettes and APPLE for computer.

Suggestive Marks В.

Suggestive marks are marks that connote a meaning other than the denotation of the words used as their marks. Usually it requires an imaginative action, a "mental leap," to connect the mark with the underlying good or service. For example, GREYHOUND (bus transportation services) recalls the attributes of a dog bred to compete in races, thus suggesting "sleekness and speed." ¹⁴ More examples of suggestive marks include 7-ELEVEN for convenience stores, CITIBANK for an urban-based bank and MICROSOFT for software for microcomputers. Fanciful, arbitrary and suggestive marks are deemed as inherently distinctive and require no proof of secondary meaning for legal protection and registration. 15

C. Descriptive Marks

Descriptive marks describe the qualities, ingredients or characteristics of a product or service, such as BEEF & BREW for a restaurant and HOLIDAY INN for hotels. Such marks are not inherently distinctive and cannot be registered as trademarks unless they achieve secondary meaning. Secondary meaning is defined as "a special sense that a trademark or trade name for a business, goods, or services has acquired even though the trademark or trade name was not originally protectable." ¹⁶ Although the mark appears to be descriptive of the goods or services, consumers recognize the mark as having a source, which indicates its function. Secondary meaning can be achieved through long-term use, or large amounts of advertising and publicity. ¹⁷ Even if they qualify for trademark protection, descriptive marks are the weakest marks possible, and do not receive as broad a range of legal protection as suggestive, arbitrary and fanciful marks. 18

Sometimes it is difficult to distinguish descriptive marks from suggestive marks. As mentioned previously, suggestive marks require imagination, thought, or perception to reach a conclusion as to the nature of the goods,

¹³ See id.

¹⁴ SHUY, TRADEMARK DISPUTES, *supra* note 5, at 37.

¹⁵ THOMAS McCarthy, McCarthy on Trademarks and Unfair Competition § 3.1[1] (4th ed. 2002).

¹⁶ BLACK'S LAW DICTIONARY (9th ed. 2009).

¹⁷ See Strength of Trademarks, http://www.bitlaw.com/trademark/degrees.html (last visited Aug. 8, 2013).

See TOM BLACKETT, TRADEMARKS 32 (Houndmills, Macmillan 1998).

whereas descriptive marks allow one to associate directly with that conclusion. ¹⁹ Some examples are FOOD FAIR for a supermarket, SHARP for televisions, DIGITAL for computers and WINDOWS for windowing software.

D Generic Marks

"Generic" is a category name borrowed from the fields of biological sciences in which the term is used to depict a major class or kind of things. 20 For example, COLA is generic but COCA COLA is not. It is impossible for generic marks to serve as a trademark, even if a company launches a huge advertising campaign that successfully implants the secondary meaning in the mind of consumers. 21 Generic terms, such as "sugar," "bicycle," or "corn flakes" are everyday words, and therefore should be "available for anyone to use freely without fear of being challenged in court."²² The specific thinking behind the establishment of the category of generic marks is a desire to prevent any manufacturer or service provider from acquiring the exclusive right to employ words that generically identify a product. And the exclusive right may affect fair competition or be used to initiate a suit to interfere with another person's use of the same term. The words and phrases such as MODEM, WWW or E-MAIL can be considered generic, therefore they are incapable of functioning as a trademark. 23 Further examples are ALL NEWS CHANNEL for broadcasting services, CALL FORWARDING for a telephone call forwarding service YELLOW PAGES for a business telephone directory. These trademarks can still be used by the companies but they are not entitled to equal legal protection by the Trademark Law as other types of trademarks.

IV. Semiotics in Trademark Law

In this article, a variety of linguistic approaches, including semiotics, are employed to analyze the phenomena of trademarks. Since semiotics, a sub-field of structural linguistics, involves a more complicated conceptualization of signs, we will give a brief introduction in this section.

Semiotics is the scholarly discipline that studies systems of signs in all of their manifestations, and the most elaborate system of signs is definitely the human language.²⁴ Numerous researchers, such as Beebe, Garrett, Karnezos, Lang, employ semiotics as essential framework when analyzing trademark

²³ See Strength of Trademarks, supra note 17.

¹⁹ See Strength of Trademarks, supra note17.

See Shuy, supra note 12, at 451.

²¹ See Strength of Trademarks, supra note 17.

²² See Shuy, supra note 12, at 451.

²⁴ See RENÉ DIRVEN & MARJOLIJN VERSPOOR, COGNITIVE EXPLORATION OF LANGUAGE AND LINGUISTICS 3 (Amsterdam, John Benjamins Publishing Company 1998).

law. 25

The two dominant models of what constitutes a sign were established by the linguist Ferdinand de Saussure and the philosopher Charles Sanders Peirce. ²⁶

Saussure, the founding father of modern linguistics, constructed a "dyadic" or two-part model of the sign, where the two parts are: a "signifier"—the form which the sign takes; and the "signified"—the concept it represents. The sign is the product of the combination of the signifier with the signified.²⁷ The relationship between the signifier and the signified is referred to as "signification," which is indicated in the Saussurean diagram by arrows. The horizontal line marking the two elements of the sign is referred to as "the bar." The entire concept is illustrated in Figure 1. ²⁹

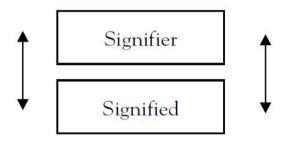


Figure 1. The Saussurean sign (the dyadic model).

Since the relationship between the sign's signifier and its signified is "arbitrary," there is no natural link between the concept of a tree and the sound or appearance of the word "tree," shown as Figure 2.³⁰

²⁵ See, e.g., Beebe, supra note 10; Meghann L. Garrett, Trademarks as a System of Signs: A Semiotic Look at Trademark Law, 23(1) INT'L J. FOR THE SEMIOTICS OF LAW 61 (2010); Karnezos, supra note 6; Angus Lang, A Case for Applying the Theoretical Semiotics in the Practice of Trade Mark Law, 21(1) INT'L J. FOR THE SEMIOTICS OF LAW 1 (2008).

²⁶ See Daniel Chandler, Semiotics for Beginners,

http://users.aber.ac.uk/dgc/Documents/S4B/sem02.html (last visited Apr. 18, 2013).

See FERDINAND DE SAUSSURE, COURSE IN GENERAL LINGUISTICS 67 (Charles Bally & Albert Sechehaye eds., Wade Baskin trans. 1959). [hereinafter SAUSSURE (Baskin)].

²⁸ See Daniel Chandler, Semiotics: the Basics 8-16 (London, Routledge 2007).

See Beebe, supra note 10, at 634.

³⁰ See Chandler, supra note 26.

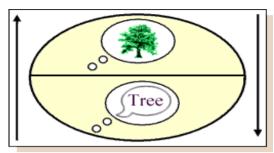


Figure 2. An example of the Saussurean sign (the dyadic model).

In the trademark field, the mark is the signifier and its service or product is the signified; an example is shown as Figure 3.

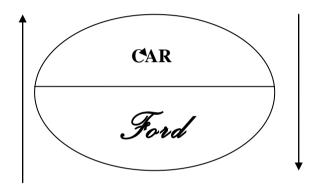


Figure 3. An example of trademark with the dyadic model.

Since semiotics focus on the definition of signs and symbols, it is an ideal instrument for the study of trademarks, which are signs or symbols that are employed by a company to distinguish its unique brand of goods. Filtered through the logic of semiotics, a trademark is no longer a mere sign, but an expression of linguistic communication that has been accepted by society.³¹

A key requirement of a trademark is that the mark itself must have any intrinsic functionality since the registration of a trademark will limit people's ability to use the mark, whether it is a sign, a symbol or a color. Given such a situation, the best trademarks are arbitrary or fanciful words or designs, which have no direct link to the products that they represent except in the minds of the public. ³²

When studying trademarks through semiotics it is vital to remember that

³¹ See JASON R. FISHER, VIEWING TRADEMARK LAW THROUGH THE LENS OF SEMIOTICS 3 (May 2009) (Kevelson Seminar Manuscript).

³² See Jason R. Fisher, Student Positions and Opinions, 23(1) INT'L J. FOR THE SEMIOTICS OF LAW 3, 18-19 (2010).

like most words, trademarks involve more than just the symbols that they represent.³³ For this phenomenon, Peirce perceived a sign as containing three distinct parts, known as the triadic sign model, shown as Figure 4.³⁴ The model is also commonly termed as a semiotic triangle.

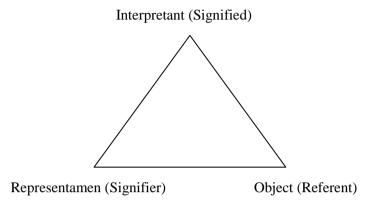


Figure 4. Peirce's triadic sign model.

The first element is the representamen, the visible object that has another meaning outside of itself. According to trademark law, the representamen is the physical mark itself, which serves as a sign or symbol. The second element is the referent, a physical or mental entity, that is linked to the sign through the representamen. The referent is the company or product that is being represented by the trademark. The third and final element is called the interpretant, which Peirce defined as "creating something in the mind of the interpreter." The representamen and the referent are joined by the interpretant; it is the cognitive process by which a person recognizes and interprets a trademark. Since every person's cognitive process is slightly different, the interpretant are never exactly the same. When two people look at the same trademark, both will connect the symbol to its physical counterpart even though their thinking processes will do so in different ways. 35

Trademarks have a more complex meaning than the specific products and the companies they represent. The signs and words that we encounter on a daily basis are also an expression of trust, and the smooth operation of the market depends on that trust. A trademark on an item informs the consumer that a company has manufactured the item that they put their trust in and that they are guaranteed a certain level of performance by that product. This is

³⁵ See Fisher, supra note 32, at 19.

³³ See id.

See Beebe, supra note 10, at 621; see also Garrett, supra note 25, at 64.

why trademark dilution is a serious issue.³⁶

The whole field of trademark law can be considered a "system of signs designated to facilitate the commodification of social distinctions." Jean Baudrillard, among others, advocated that consumption (i.e. the purchase of commodities) should be analyzed "as a system of communication and exchange, as a code of signs continually being sent, received and reinvented—as language." 38

V. The Case of "MISS WU"

Having completed the introduction in previous sections, it is time to examine the case of "MISS WU" from the perspective of linguistics. The IP court rejected Jason Wu's application on the grounds that the mark is too generic since "WU" is a common surname in Taiwan and cannot be exclusively associated with the designer Jason Wu. In short, the mark lacks distinctive characteristics.

The plaintiff contended that MISS is a metaphor of feminine tenderness and WU is an onomatopoeia, which refers to the sound of an owl, rather than the common Chinese surname "吴" (Wu). The combined term, the trademark, was intended to associate female leather accessories with the logo of an owl, another trademark that was successfully registered by the plaintiff. If this explanation is accepted by the court, then "MISS WU" will be regarded as a suggestive mark. In the Examination Guidelines on Distinctiveness of Trademarks the regulations concerning a suggestive mark are listed in Article 2.1.3:

A "suggestive trademark" refers, by use of metaphor or simile, to the quality, function, or anything related to the ingredients or nature, of the goods. Such sign is easy to remember, but is not necessarily or commonly used by competitors to describe goods or services. A suggestive description differs from direct description of goods or services. When the former is used, consumers must exercise certain level of imagination, thought, feeling or inference in order to understand the connection between the sign and the goods or services. This type of sign is not necessarily or naturally chosen by competitors to describe the features of the goods or services because there are other more directly descriptive words or devices available. Therefore, the grant of exclusive right to this type of sign will not affect fair competition and such sign is registrable.

Therefore, it is clear that suggestive trademarks are registrable as long as

³⁶ See id. at 19-20.

³⁷ Beebe, *supra* note 10, at 624.

³⁸ *Id.* at 623; *see also* Jean Baudrillard, The Consumer Society: Myths and Structures 93 (Sage 1998).

certain requirements are met. To decide whether the mark "MISS WU" is sufficiently distinctive, we will employ linguistic approaches, such as corpus linguistics, phonetic rules, semantics and semiotics to examine the look, sound and meaning of the mark.

A. Look

The pattern of the mark "MISS WU" filed by Jason Wu was not specially designed. Even though it is the brand of a distinguished designer, it looks surprisingly ordinary. To give the mark "MISS WU" a connotation closer to the plaintiff's intended meaning, the shape of the expression has been changed to look more feminine with a linear silhouette design shown as figure 5. The re-designed mark on the right looks considerably more female-like.

MISS WU

MISS WII

"MISS WU" in ordinary font "MISS WU" in Bodoni MT condensed

Figure 5. "MISS WU" in different fonts.

Although the plaintiff did not perform any particular design work with the mark, we are attempting to demonstrate that more elaboration would make the mark more distinctive.

Sound and Meaning

Based on the phonetic pattern of onomatopoeic words, such as "coo" and "oops," the sound of an owl, is more likely to be spelled as "WOO" rather than "WU", but unfortunately the word "woo" is already used as a verb for other meanings. The word "woo" refers to 1) sue for the affection of and usually marriage with or 2) solicit or entreat especially with importunity.³⁹ Anyway, "WU" simply does not look or feel like an onomatopoeia as claimed by the plaintiff, even though it is pronounced exactly the same as "woo." According to Derek Abbott's Animal Noise Page, 40 the sounds of an owl hooting can be spelled as:

twit twoo hoo hoo whit woo terwit terwoo

http://www.merriam-webster.com/dictionary/woo (last visited Apr. 2, 2013).

http://www.eleceng.adelaide.edu.au/Personal/dabbott/animal.html (last visited Apr. 5, 2013).

³⁹ See Webster, Merriam Webster Dictionary,

⁴⁰ See Derek Abbott, Animal Noise Page,

Despite the fact that the English language is notorious for its inconsistency between orthography and pronunciation, we can clearly see that the phoneme [u] is usually spelled as "oo" instead of "u" ⁴¹ for onomatopoeias. Therefore, it is reasonable for the court to say that "WU" is a surname, even though the plaintiff countered that the IP office committed a dereliction of duty by interpreting "WU" as the surname "吴" (Wu).

The guidelines of surnames used as trademarks are regulated as the Examination Guidelines on Distinctiveness of Trademarks, 4.6.1⁴²:

A surname used on goods or services is usually the principal's surname rather than a sign identifying the source. When other competitors use the same surname, relevant consumers will be unable to identify the source by such surname. From the perspective of competition, different competitors in the same trade having the same surname should be free to use their own surname, regardless of when they enter the market. In principle, use of a surname as a trademark is not distinctive. Such trademark can be registered only if there is evidence that it has acquired distinctiveness.

Guideline 4.6.1 indicates that surnames can be registered as trademarks only if there is evidence that it has acquired distinctiveness, which is precisely what "MISS WU" lacks. The appellant challenged the standard of the IP office, citing earlier registered trademarks, such as "Dr. Chi," "Dr. Ku," "Miss V," and "Miss S." as examples. These marks possess an acquired distinctiveness through a lengthy period of use in commerce. Moreover, neither "V" nor "S" is a surname in English or Chinese.

According to Trademark Law, after a surname has been recognized as acquiring a secondary meaning, the mark is protectable as a trademark, thus preventing anyone else from using the same mark for a comparable product or service, even if they have the same surname. For example, Fred Hilton is forbidden to call his hotel "Hilton Hotel" and John Newman can not call his salad dressing "Newman's Salad Dressing" because the trademarks Hilton and Newman's Own have already achieved secondary meaning. ⁴³ You can imagine how much trouble the registration of the mark "MISS WU" will cause to the huge number of people surnamed Wu in Taiwan.

Next, we will apply corpus analysis to the distribution of "MISS WU." Designed for the study of language, corpus linguistics is a method of linguistic analysis which relies on a collection of natural or "real word" texts

⁴¹ See Peter Ladefoged, A Course in Phonetics (Harcourt, 4th ed. 2001).

Examination Guidelines on Distinctiveness of Trademarks, http://www.tipo.gov.tw/ct.asp?xItem=285308&ctNode=7048&mp=1 (last visited Apr. 18, 2013).

⁴³ See Strength of Trademarks, supra note17.

known as corpus. The essential characteristics of corpus-based analysis are: 1) it is empirical, analyzing the actual patterns of use in natural texts; 2) it utilizes a large and principled collection of natural texts, known as a "corpus," as the basis for analysis; 3) it makes extensive use of computers for analysis, using both automatic and interactive techniques and 4) it depends on both quantitative and qualitative analytical techniques. Since corpus linguistics depends on a massive corpora made up of millions, even a billion words, the statistics it uses are considered reliable, due to the belief that language is a reflection of reality.

Since the mark "MISS WU" is intended to be used in English rather than Chinese, the common language used in Taiwan, it would be inappropriate to use a Chinese corpus for analysis. Therefore, we cannot but do with an English corpus. The corpus used for analysis is the Corpus of Contemporary American English (COCA), 46 which is the largest corpus available for American English. From the data shown in Table 1 collected from COCA, we have found that the majority of the collocation of "Miss" with a surname occupies 87.3%, while the remaining 12.7% is linked with the name of a place, a country or other words, such as Miss America or Miss California. It is worth pointing out that the very expression "Miss Wu" appeared only once in the corpus. In a corpus as large as 450 million words, that is extremely rare and can be totally ignored. Perhaps this explains why the trademark "MISS WU" was successfully registered with the IP office in the United States.

Table 1. The distribution of the collocation of "Miss"

Expressions	Miss + surname	Miss + other words	
Percentage	87.3%	12.7%	

The distribution of "Wu" and other common English surnames is presented in Table 2. By the standard of corpus analysis, if the frequency of a recurrent expression per million words is as low as 4.56, it is not worth

⁴⁴ See Douglas Biber, Susan Conrad, & Randi Reppen, Corpus Linguistics. Investigating Language Structure and Use 5 (Cambridge University Press 1998) [hereafter Biber, Corpus Linguistics].

⁴⁵ See id.; see also Corpus Linguistics, http://www.cl2011.org.uk/ (last visited Apr. 5, 2013).

The Corpus of Contemporary American English* (not to be confused with the American National Corpus) is the first large, balanced corpus of contemporary American English. It is freely available online, and it is related to other large corpora that they have created. The corpus contains more than 450 million words of text, including 20 million words each year from 1990-2012, and it is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. The corpus is also updated at least twice each year, and will therefore serve as a unique record of linguistic changes in American English; available at http://www.americancorpus.org/ (last visited Apr. 2, 2013).

counting, and is likely to be regarded as insignificant.⁴⁷ Compared with common surnames, such as "Smith," "Brown," "Johnson," "Jones," the frequency of "Wu" seems significantly low, therefore "Wu" is a rare surname in Western culture.

Table 2. The distribution of WO and other common surnames					
Surname	WU	SMITH	BROWN	JOHNSON	JONES
token	2053	47172	39392	39168	31681
frequency in per million words	4.56	104.83	87.54	87.04	70.40

Table 2. The distribution of "WU" and other common surnames

In contrast, the distribution of the surname "吳" (Wu) in Taiwan is extremely different. Compared with the rarity in Western culture, the surname吳 "Wu" is very common and abundant in Chinese society. In fact, Wu is one of the top 10 common surnames in Taiwan according to the statistics of the Ministry of the Interior. ⁴⁸ In 2012, Wu was the No. 7 most common surname, with 4.04% of the whole population—23 million people—of Taiwan. Therefore, there are approximately one million people surnamed Wu in Taiwan. If half of these people are females, then there are nearly half a million *Miss Wu's* in Taiwan. That's definitely a huge number for a category. As mentioned previously, a term used to depict a major category or kind of things or people is generic. Apparently, the differentiation of the surname distribution is a result of cultural differences.

Based on the above-mentioned analyses, it is fair to conclude that "MISS WU" is a generic mark, and the guidelines of generic marks are regulated as the Examination Guidelines on Distinctiveness of Trademarks, 2.2.2⁴⁹:

A generic mark is a sign that is commonly used by businesses in respect of specific goods or services, while a generic name is a name that is commonly used by businesses to denote the goods or services. A generic name also includes the shortened forms, acronyms and common nicknames. For relevant consumers, a generic mark or name is used by general businesses to denote or indicate the goods or services themselves and does not serve to identify the source. For example, "revolving neon light in red, blue and white" is a generic mark for hair salons; "開心果" ("Kai Xin Guo") is a common nickname for pistachios; "阿拉比卡 Arabica" is

⁴⁸ See Ministry of the Interior website, http://www.moi.gov.tw/outline/en/en-03.html (May 2, 2013).

Examination Guidelines on Distinctiveness of Trademarks, *supr*a note 42.

⁴⁷ See BIBER, CORPUS LINGUISTICS, supra note 44.

a variety of coffee tree. These marks or names cannot serve as the basis for identifying the source and are not registrable; otherwise, the exclusive right may affect fair competition or be used to initiate a suit to interfere with another's use of the same term.

The guideline clearly indicates that generic marks are not registarable since "the exclusive right may affect fair competition or be used to initiate a suit to interfere with another person's use of the same term."

C. English or Chinese?

When foreign words are used as trademarks, numerous problems may arise. Should a mark's descriptiveness or suggestiveness be considered from the perspective of speakers of the country where the protection is sought or from those who speak the foreign language itself?⁵⁰

As McCarthy indicated, problems may arise when the foreign language word would or would not have a descriptive connotation to local consumers. McCarthy was troubled by the doctrine of foreign equivalents because it depends greatly on the knowledge and acquaintance of consumers with specific foreign languages or foreign words. In Taiwan, the usage of foreign words as trademarks is regulated in the Examination Guidelines on Distinctiveness of Trademarks 4.1.3⁵²:

If a foreign word is a generic name or relevant description of the designated goods or services, the word is not distinctive. When a trademark to be registered consists of or contains foreign word(s), the applicant should specify the language and the meaning in Chinese in the column of trademark specimen in the application form. If the language is familiar to local people, such as English, it is easier to determine whether the word concerned is a generic name or relevant description of the goods or services. For a word in a language that is less familiar to local people, even if registration is granted because it is not found to be a generic name or be descriptive of goods or services, it may still be subject to cancellation by opposition or invalidation proceedings when such word is later found to be unregistrable.

Again, the guideline clearly points out that if a foreign word is a generic name, the word is not distinctive and therefore not registrable.

D. Interpret the Mark "MISS WU" in the Semiotic Theory

In the case of "MISS WU," many people have questioned the reasoning

⁵⁰ See Shuy, Trademark Disputes, supra note 5, at 144.

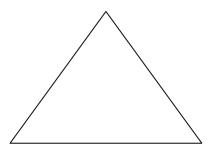
⁵¹ See id.; see also McCarthy, supra note 15, at § 3.1[1].

⁵² Examination Guidelines on Distinctiveness of Trademarks, *supra* note 42.

of the court and criticized the standard of the court. People in the fashion industry in Taiwan were even outraged by the court's audacity in refusing to grant registration of the mark, which has been successfully registered in the United States and many EU countries. Among the criticisms of the case, the major problem is that the common public, or laypersons from the perspective of legal professionals, confuses the trademark with the designer Jason Wu. In semiotic terms, they have confused the referent with the representamen. It is essential to remember that the mark, not the plaintiff, i.e. the designer, is being examined. Most of the negative reaction focused on how ignorant and ill-informed the IP officials and judges must be if they do not know that Jason Wu is the designer of the gowns of Michelle Obama and Mei-ching Zhou, the first lady of Taiwan. Actually, this very fact is expressly indicated in the defense of the plaintiff. Yes, the court "does" know that Jason Wu is a distinguished international designer. What is problematic is the mark "MISS WU," which is too generic, and thus cannot be registered as a trademark according to the trademark law.

Garrett indicated that marks can be viewed in light of the Peirce's semiotic triangle while analyzing the case of *eBay*, *Inc. v. Perfumebay.com*⁵³. Following his demonstration, we will illustrate this case with the triangle as well. In this case, the mark "MISS WU" is the signifier, the referent is the trademark. The signifier-referent relation signifies "Jason Wu" rather than the concept of a trademark, which caused the confusion, as the signifier does not signify the correct signified. In the mind of the common public, "MISS WU" means "Jason Wu" but to the IP court it means a phrase which it is not qualified to become a registered trademark. The confusion can be illustrated through the following semiotic triangle shown as Figures 6 and 7.

Signified-Interpretant (Jason Wu) Thirdness



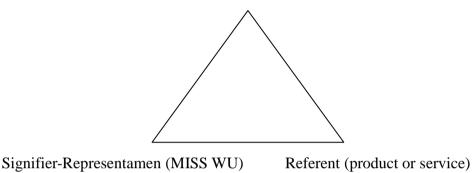
Signifier-Representamen (MISS WU) Firstness Referent (trademark) Secondness

Figure 6. Peirce's triadic sign model applied for "MISS WU."

⁵³ See Garrett, supra note 25, at 67.

As mentioned earlier, Peirce defined the interpretant as "creating something in the mind of the interpreter." The interpretant is what connects the representamen and the referent. According to semiotic theory, the signified changes with person and context. ⁵⁴ In this case, the interpretant, i.e. the IP court and the public, understand and interpret the mark "MISS WU" in greatly different ways and their cognitive processes deviate from each other to a noticeable extent as Figure 7 shows.

Signified-Interpretant (IP court, the public) Thirdness



Secondness

Figure 7. Peirce's triadic sign model applied for "MISS WU."

The coincidence of the announcement of the ruling of Jason Wu's trademark case and First Lady Michelle Obama's selection of a second Jason Wu-designed gown for Obama's inauguration ball may have given the mark "MISS WU" a second meaning. People learned that "MISS WU" is one of Jason Wu's brands. Prior to this surge of media coverage, probably few people had heard of the name. Under the pressure of public opinion, the IP office has conceded that Jason Wu can file a trademark registration again with more supplements, such as the sales figures and the names of celebrities who have worn the products of "MISS WU," it is likely that they would grant the registration. Nobody would like to see the law twisted merely to satisfy the demands of famous people. However, if we look at the case from the bright side, an ideal world in which the law stands neutral to everybody is still worth our efforts.

Based on the analysis presented above, it is fair to say the IP court acted properly when ruling on the case of Jason Wu. Facing a world-renowned designer such as Jason Wu, it performed its role of gatekeeper. It is understandable that both the IP office and the court have to be cautious in deciding the case since once they grant the registration of "MISS WU," the applicant will enjoy an exclusive right of use accompanied with the

Firstness

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⁵⁴ See SAUSSURE (Baskin), supra note 27, at 80.

protection of the trademark law. The situation would deprive others of the right to use common expressions, such as "A Miss Wu called and left a message," in everyday life. As a matter of fact, the notion that "bits of linguistic or semiotic material" can actually be owned by individuals and companies has been challenged by researchers. How to strike the balance between protection of trademarks and freedom of expression is their main concern.

E. Companies' Strategies for Generic Terms from the Perspective of "MISS WU" Case

The global trend is that successful companies and their lawyers are endeavoring to ensure that their marks do not become generic, termed as genericide. 56 Genericide is a legal term for generification, which stands for the historical process whereby a brand name or trademark is transformed through popular usage into a common noun.⁵⁷ In fact, a great proportion of the legal efforts of large corporations is spent waging a constant battle against its mark being used as a generic term. ⁵⁸ It is beyond imagination and extremely unwise for a company to employ a generic term in the first place when the proprietors of *Kleenex*, *Baggies*, *Xerox*, and *Google* are struggling with the problem of genericide. Take the trademark of *Google* for example. These days, Google become more cautious and aggressive, with occasional flurries of letters requesting publications to say "using the Google search engine" instead of "googling." ⁵⁹ But that doesn't seem to be able to stop people from using the term in everyday speech. We can well imagine how much their attorneys would like to nip the problem in the bud before it gets serious since they fully understand that if a trademark becomes generic through common use, the court can rule it invalid and revoke its registration.

Normally, trademarks attorneys would propose trademark strategies for their clients in order to easily protect their trademark use in the future. And it is not the case that the term "MISS WU" has been used in commerce for a long time and received recognition from the consumers, and therefore acquired a second meaning. As a matter of fact, Jason Wu started to use that

⁵⁵ See Ronald Butters, *Trademark Linguistics – Trademarks: Language that one owns, in* THE ROUTLEDGE HANDBOOK OF FORENSIC LINGUISTICS 351-64 (Malcolm Coulthard & Alison Johnson eds., 2010).

⁵⁶ See Rhodri Marsden, "Genericide": When Brands Get Too Big, http://www.independent.co.uk/news/business/analysis-and-features/genericide-when-brands-get-too-big-2295428.html (last visited Apr. 8, 2013).

See Richard Nordquist, About Grammar,

http://grammar.about.com/od/fh/g/genericideterm.htm (last visited Apr. 8, 2013).

⁵⁸ See Marsden, supra note 56.

⁵⁹ See id.

 $^{^{60}\,}$ See Michacla Falls, Recent Trends in Trademark Protection 40-45 (Aspatore 2011).

term as recently as the year of 2012. Not a single item of the series of "Jason Wu" or "MISS WU" has been officially purchased in the marketplace of Taiwan. In other words, people have never given recognition to the brand of "MISS WU" as consumers. The reason why people supported Jason Wu in his lawsuit is not that the mark is distinctive enough but that they are proud that he is a world-famous Taiwanese.

VI. Conclusion

A. Findings

This research shows that the law and linguistic disciplines, semiotics in particular, can collaborate effectively to resolve trademark disputes. In fact, the field of trademarks is tailor-made for the application of linguistics. Semiotics can contribute a great deal more to the analysis of trademarks than just a theoretical academic research methodology since the "law is a system of signs" and semiotics is the study of signs. Using semiotics allows people to obtain a more in-depth look at legal realities. If the IP office had employed plain language instead of annoying legalese when it explained why it was inappropriate to register "MISS WU" as a trademark with those linguistic approaches, the public would have identified with the office, rather than blindly supported the plaintiff. This study demonstrated that established linguistic methodologies can assist legal professionals in analyzing the appropriateness of disputed trademarks.

B. Suggestions

Since it is common for trademark applicants to use trademarks that have already been registered as evidence that the intended mark is sufficiently distinctive to qualify as a trademark, we suggest that the IP office evaluate all of the trademarks that have been granted registration through the acquired distinctiveness, i.e. secondary meaning. In the majority of cases, these marks are either generic or descriptive. Generally speaking, the owners of these marks have used the mark for a long period of time, and their products or service are well-received by consumers, which is how their marks acquire distinctiveness—secondary meaning. Perhaps the IP office could supply a brief introduction to those trademarks in the database. Presented with clear explanations of the reasoning behind each existing trademark, other applicants would understand that their intended marks do not meet the requirements of the trademark law because there are no comparable background stories of secondary meaning behind their marks. The provision of such introductions could prevent a considerable amount of ill-feeling and resentment and spare a lot of unnecessary trouble.

Cited as:

 $^{^{61}\,}$ Roberta Kevelson, The Law as a system of signs 25 (Plenum Press 1988).

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CHALLENGES IN PUBLIC AND PRIVATE DOMAINS WILL SHAPE THE FUTURE OF INTELLECTUAL PROPERTY

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ABSTRACT

Market failures, troubled access to medicine, impediments to free flow of information, copyright overextension, digital right protection, overkill and patents stifling rather than stimulating innovation are just a few of the disparaging themes around intellectual property. The main drives behind changes in IPR systems are growing discontent with the right to exclude that is essential to most IPR systems, the diversity of IP policies between the West and the Developing countries as well as digitalisation of information. The future of IPR will be shaped by its users more so than by international IP legislative initiatives. This think piece explores the main drives behind a growing critical view on intellectual property and how the law can change so as to restore confidence in the workings of intellectual property systems.

Keywords: Intellectual property, patent law, trade law, TRIPS, India, economic growth, right to exclude, commons, private and public IPR domain alternative to IPR systems, liability rules

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I. Introduction

Intellectual property law practitioners are generally not known for their preoccupation with shaping the future of the law. Engaged with daily routines, IP law practitioners are more concerned with practical issues like the question in which EU country a new, unified European Patent Court will be established, whether such a court—once in place, will maintain or change long hold patent law concepts like "obviousness," and if so, whether common or civil law traditions will prevail.

II. Issues

A. IP Does Not Feature Prominently in International Law Publications

Literature on what intellectual property will look like in 2030 is scarce.³ Well known writers seem more concerned with the possible future for different fields of law, ranging from criminal and environmental to constitutional and corporate law.⁴ Intellectual property is notably absent. When analysing the inconsistencies or inadequacies of current legal systems, intellectual property rights, also known as IPRs, do not attract the imagination of legal minds when they explore the challenges law systems face in the new millennia. Even a recent publication, "Realizing Utopia: The Future of International Law," edited by a formidable legal mind in international law, Antonio Cassese, covered all imaginable areas of the law, except intellectual property.⁵

The reason behind this is simply that intellectual property is not a subject that "translates" well into the mind of politicians, scientists, policymakers or even economists. IPR however is an important instrument in opening markets for knowledge, increase Foreign Direct Investment and allows

¹ See Peter S. Menell, *Intellectual Property: General Theories*, in ENCYCLOPEDIA OF LAW AND ECONOMICS VOLUME I THE HISTORY AND METHODOLOGY OF LAW AND ECONOMICS (Boudewijn Bouckaert & Gerrit De Geest eds., Edward Elgar, Cheltenham 2000).

² See, e.g., Klaus Grabinski, An Overview of the Draft Rules of Procedure for the Unified Patent Court, 48 LES NOUVELLES 154 (2013); Mauricio Troncoso, European Union Patents: A Mission Impossible? An Assessment of the Historical and Current Approaches, 17 MARQ. INTELL. PROP. L. REV. 231 (2013).

³ See Severin de Wit, Will the Patent Act Make it to 2110?, in A CENTURY OF PATENTS IN THE NETHERLANDS (H.W.A.M Hanneman ed., The Hague, Sdu Uitgevers, 2010).

⁴ See Adam B. Jaffe & Josh Lerner, Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It (Princeton University Press 2004).

⁵ See Antonio Cassese ed., Realizing Utopia: The Future of International Law (Oxford University Press 2012).

innovation to spur (that at least still many believe). ⁶ IP therefore should be included when we discuss about changes in the law today and consequently how the law of the future will look like with or without intellectual property.

"Realizing Utopia" is a collection of essays, written by a group of well-known international jurists, reflecting on some of the major legal problems faced by the international community. Remarkably, shaping an improved architecture of world society—or at a minimum, reshaping some major aspects of international dealings—does not seem to include what impact intellectual property laws have on these subjects.

B. Intellectual Property as a Historical Public Policy Instrument

The protection of intellectual property has a history that dates back several centuries. ⁹ Christopher May and Susan Sell address this in their collaborating work on IP, "Forgetting History is Not an Option! Intellectual Property, Public Policy and Economic Development in Context," and note that the "protection of intellectual property has always been a form of public policy an intervention in markets to transform their functioning." ¹⁰ Tracing the development of IP policy as far back as the Middle Ages, May and Sell elaborate further on the topic:

In the 1300's patents were grants of privilege awarded to those who brought new techniques into a sovereign's territory. British kings

2012). 7 Se

⁶ See Keith E. Maskus, Intellectual Property Rights and Foreign Direct Investment, Centre for International Economic Studies, University of Adelaide, Policy Discussion Paper No. 0022, May 2000; see also Sarah R. Wasserman Rajec, Evaluating Flexibility in International Patent Law, 65 HASTINGS L.J. 153, 191 (2013); Thomas K. Cheng, A Developmental Approach to the Patent-Antitrust Interface, 33 Nw. J. INT'L L. & BUS. 1 (2012).

⁷ See CASSESE, supra note 5.

⁸ See Susan K. Sell & Christopher May, Moments in Law: Contestation and Settlement in the History of Intellectual Property, 8(3) REVIEW OF INTERNATIONAL POLITICAL ECONOMY 467 (2001).

⁹ See, e.g., Oren Bracha, Book Review, The New Intellectual Property of the Nineteenth Century, 89 Tex. L. Rev. 423 (2010); Murray Lee Eiland, The Role of the Individual Inventor in Pharmaceutical Patents, 18 U. Balt. Intell. Prop. L.J. 1 (2009); Sharon E. Foster, Invitation to a Discourse Regarding the History, Philosophy and Social Psychology of a Property Right in Copyright, 21 Fla. J. Int'l L. 171 (2009).

¹⁰ CHRISTOPHER MAY & SUSAN SELL, FORGETTING HISTORY IS NOT AN OPTION! INTELLECTUAL PROPERTY, PUBLIC POLICY AND ECONOMIC DEVELOPMENT IN CONTEXT 5, http://www.dime-eu.org/files/active/0/MaySell.pdf (presented at Intellectual Property Rights for Business and Society Birkbeck College, University of London, 2006, and based on the authors' book, INTELLECTUAL PROPERTY: A CRITICAL HISTORY (Lynne Rienner Publishers 2005)).

awarded letters of protection to innovators who developed new weaving techniques and various new industrialist processes. Rulers sought to attract and retain talented artisans in their territory, inspired by the mercantilist goals of limiting imports and promoting exports. Intellectual property rights emerged during the early mercantilist period as a means for nation-states to unify and increase their power and wealth through the development of manufactures and the establishment of foreign trading monopolies. The term patent, derived from the Latin patere (to be open), refers to an open letter of privilege from the government to practice an art. The Venetian Senate enacted the first patent statute in 1474 providing the maker of any 'new and ingenious device ... reduced to perfection so that it can be used and operated' an exclusive license of 10 years to practice the invention. Other nations followed suit and the granting of limited monopolies for inventions, and later to publishers and authors of literary works, became the dominant means of promoting innovation and literature. 11

However, what has become of this romantic idea of IPRs stimulating innovation?

C. Property as the Leading Justification of IPRs

Over time, the predominant theme around intellectual property rights has been the right to a creation of the mind-to own this as if it is one's property-enabling the holders of IP to exclude others. ¹² As we will see later in this think piece, in the private domain the concept of "property" has caused many to argue that a right to exclude third parties from using such property should be altered into a compensatory liability regime.

Given the distributional consequences of the ability to own (and control, even temporarily) products of the mind and imagination (books, films, software, trade dress as well as technological innovations), intellectual property has frequently been an instrument of power and, once captured, the basis of further accumulation of power. However, unlike power that comes from the control of sparse material resources, the holders of intellectual property have had to construct the scarcity of property through legal instruments. The very process of defining what constitutes intellectual property effectively reinforces particular perspectives that may benefit, some at the expense of others, treating some things as "property" while others remain "freely" available.

¹¹ *Id*.

¹² See MICHELE BOLDRIN & DAVID K. LEVINE, AGAINST INTELLECTUAL MONOPOLY (Cambridge University Press 2008).

D. Intellectual Property Rights, a Source of Economic Power

Patented innovative ideas, copyrighted new creations of the mind, breakthrough product design and the power of famous brands coincide with economic power as soon as these are exercised on the market. However, this economic power is not equally enforced or exercised. The right to exclusivity that is so quintessential to IP rights also creates asymmetrical economic power between the "have" and the "have not." As a matter of fact, asymmetrical economic power goes a long way towards explaining why semiconductor chips are identified as intellectual property, whereas indigenous folklore is not. As Susan Sell and Christopher May describe in their "Moments in Law, Contestation and Settlement in the History of Intellectual Property" the legal institutional development of IP shows significant difference from other forms of productive relations. 13 In this sense, while other markets emerged prior to capitalistic models of organisation and were slowly integrated into the modern capitalist system, with products entering markets through production processes organised in a multitude of ways, this is not true of intellectual property. For markets in knowledge, the property had to be constructed through law, so that it could be allocated through market mechanisms, but those who sought this commoditisation were essentially nascent capitalists. 14 Thus, unlike other forms of productive relations that were re-configured through the emergence of capitalism, intellectual property relations are the product of the great transformation of the sixteenth and seventeenth centuries.

Economic power has long been the leading force behind the pressure put on developing countries to accept Western intellectual property concepts that were previously alien to those countries. Chile provides a striking example. In 1990 an American-based private business association used its power not only to reject, but also actively to shape, the legislation of a foreign sovereign government. Chile until 1991, like many developing countries, refused to grant patent protection for pharmaceutical products. This refusal was an effort to keep the prices of necessary medicines affordable by placing

¹³ See Sell & May, supra note 8.

¹⁴ See, e.g., Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

¹⁵ See Susan K. Sell, Private Power, Public Law: The Globalization of Intellectual Property Rights 1 (Cambridge University Press 2003), http://www.international-ul.com/pdf/ebook/1/ Uyz13PfFMbDE.pdf.

¹⁶ See id.

¹⁷ See id.

public health considerations above property right concerns.¹⁸ Chile faced increasing pressure by a small group, called Pharmaceutical Manufacturers of America (PMA), to revise its laws to extend patent protection to pharmaceutical products.¹⁹ In 1990, Chile proposed a revised patent law, which was rejected by this small but powerful group, forcing Chile to go back to the drawing board and revise its patent law.²⁰ This exceptional industry lobbying was basically a prelude to the related and even more farreaching international agreement on IP, the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) administered by the World Trade Organisation (WTO).²¹

E. Diversity of IP Policies Between Countries is a Function of their Development Stage

As Susan Sell and Christopher May have shown, the diversity of intellectual property policies between countries is in part a function of their different stages of development. ²² All other things being equal, a technological leader will prefer strong protection of its innovations, whereas a follower will favour access over protection. ²³ Strong economies will be served by expanding the markets for their goods, while weak economies are best served by cheap or free access to the technologies of advancement and development.

In the current world economic climate this is all the more true. In the public domain, India, due to its increasing economic power, allows its national pharmaceutical companies much more legal lenience in using proprietary processes and products owned by foreign counterparts and covered by foreign owned patents in order to protect national interests, despite TRIPS: interests that collide with internationally recognised patent rights of third parties.

19 See id.

¹⁸ See id.

²⁰ Saaid

²¹ See, e.g., Emir Aly Crowne, Fishing TRIPS: A Look at the History of the Agreement on Trade-Related Aspects of Intellectual Property, 2 CREIGHTON INT'L & COMP. L.J. 77 (2011).

²² See Sell & May, supra note 8.

²³ See Eduardo Porter, *Tech Suits Endanger Innovation*, NEW YORK TIMES, 29 May 2012, *available at* http://www.nytimes.com/2012/05/30/business/economy/tech-lawsuits-endanger-innovation.html (last visited Aug. 9, 2012); Feng Xiang, *The End of Intellectual Property*, 2(1) INTERNATIONAL CRITICAL THOUGHT 99 (2012), http://bit.ly/L1KxYg (last visited Aug. 9, 2012).

In the early 1960s, the first Indian drug companies came to the market.²⁴ At that time, foreign multinational companies had mainly dominated the Indian drug market. This did not change until the early 1970s when domestic Indian companies were able to capture only about 25 per cent of the Indian market. The Indian government then decided to implement new legislation to allow its domestic companies to gain a greater market share. The motivation for that was to allow for a better and cheaper supply of medication. The Patents Act of 1970, which was later amended in 1972, 1992, 1995, and 1999, virtually abolished IPRs in the pharmaceutical sector using the following provisions: (1) product patents for pharmaceutical products were not granted; (2) the available process patents were very weak and offered only insufficient protection due to their restrictive five to seven year statutory term; (3) the equity share of foreign companies in Indian drug manufacturers was limited to 40 per cent; (4) price control was introduced to cut prices; and (5) a wide ranging system for compulsory licences was introduced. Of the above, the fifth is the most restrictive to the industry since it virtually eliminates all judicial reliance on the Indian IPRs. Over the years, mainly the production of generic drugs fuelled the growth of the Indian pharmaceutical industry. This was done through copying existing formulations of multinational companies and producing them in a larger scale after making slight process alterations. Since the weak IPR did not allow for litigation, more and more foreign companies ceased investment in the Indian market. Consequently, by 1991, Indian companies had turned market share numbers round in their favour and now served roughly 75 per cent of the market. However, after flourishing by means of the weak IPR for about 24 years, the regulatory framework changed for the Indian companies in 1994. In the process of joining the WTO, the Indian government had to sign the TRIPS agreement.

The case of India and its efforts to protect national generic industries is just one example of an intellectual property system that has come under increasing international criticism. Emerging economic powers, like those in BRIC countries, no longer tolerate a unilateral "dictate" on how to seek equilibrium between protecting national interests and protecting third party rights of foreign investors. Local indigenous knowledge, long ignored by Western pharmaceutical companies, is now at the heart of R&D projects in

²⁴ See Carsten Fink, Patent Protection, Transnational Corporations and Market Structure: A Simulation Study of the Indian Pharmaceutical Industry, in INTELLECTUAL PROPERTY AND DEVELOPMENT: LESSONS FROM RECENT ECONOMIC RESEARCH (Keith E. Maskus & Carsten Fink eds., World Bank Publications 2005),

http://siteresources.worldbank.org/INTRANETTRADE/Resources/Pubs/IPRs-book.pdf.

many developing countries, creating new challenges about who owns the intellectual property in knowledge derived from indigenous sources.²⁵ The increased self-consciousness of those countries, caused by economic prosperity, provides them with the confidence that they can withstand international pressure to adapt their IP laws.

The overall theme behind the pressure by Western countries on developing countries to meet international TRIPS standards was that IPR strengthening would be a boon for increased Foreign Direct Investment (FDI). The further argument for developing countries to accept TRIPS was that the more importance was given to intellectual property rights, the better the behaviour of their economy would be: a proposition denied by many, among them Joseph E. Stiglitz. Stiglitz concludes that:

The intellectual property regimes designed inappropriately not only reduce access to medicines but, also, result in a lower economy efficiency and may even slow down the rhythm of innovations, with weakening effects, particularly serious in developing countries.²⁷

The evolving trend of developing countries of showing economic growth where Europe and the US are lagging behind will only increase the number of occasions on which Western originated pressure to adapt IPR regimes will be faced with scepticism and resistance, unless a fairer and more equitable IP system is put into place that allows those countries to develop their own IP legal systems. As Fink and Maskus point out in "Intellectual Property and Development: Lessons from Recent Economic Research" future empirical work should look for natural experiments that explore within one country how economic variables have changed after a regime shift on a well-defined element of the intellectual property system. ²⁸

F. Property and the Right to Exclude

²⁵ See Benjamin Müller, Promoting the Role of Intellectual Property Rights Regimes in National Economic Development: Supporting Imitation to Foster Innovation, in SCHOLARLY RESEARCH PAPER (GRIN Publishing 2008).

²⁶ See Sarah R. Wasserman Rajec, Evaluating Flexibility in International Patent Law, 65 HASTINGS L.J. 153, 191 (2013).

²⁷ JOSEPH E. STIGLITZ, MAKING GLOBALIZATION WORK 103-32 (New York, W.W. Norton & Company 2006).

²⁸ See Keith E. Maskus & Carsten Fink eds., Intellectual Property and Development: Lessons from Recent Economic Research (World Bank Publications 2005).

At the heart of this growing discontent with the functioning of intellectual property systems are a number of developments. Firstly, the changing moral and social understanding on how property can be the legitimate reason for an IP right holder to exclude others even if this exercise of ownership has consequences on public health, security or public safety. Can a holder of patented AIDS/HIV medicines prevent countries from delivering generic copies of the patented version to open up a market that would otherwise be restricted to the rich and fortunate? As Susan Sell sets out:

The history of intellectual property protection reveals a complex vet identifiable relationship between three major factors. First, it reveals shifting conceptions of ownership, authorship, and invention. These ideas denote what "counts" as property, and who shall lay claim to it. Second, this history reflects changes in the organization of innovation and the production and distribution of technology. Third, it reflects institutional change with these shifting ideational and material forces.

Legal institutionalization of these changes in law alters power relationships and inevitably privileges some at the expense of others. Property rights both are situated within broader historical structures of global capitalism and serve to either reproduce or transform these structures. Particular historical structures privilege some agents over others, and these agents can appeal to institutions to increase their power.²⁹

Furthermore, the age of digital technology, the internet and the greater ease of reproduction have increased the demand for modifications in intellectual property practices. Young people have difficulty understanding why music, videos and other information kudos cannot be freely downloaded. Perceptions of "property" rights on information have undergone an almost revolutionary shift from the powered few having access to proprietary information and resources to a mainstream audience on all kinds of public internet platforms assuming and demanding information to be "freely available." This shift in

 $^{^{29}\,}$ Susan K. Sell, Private Power, Public Law: The Globalization of INTELLECTUAL PROPERTY RIGHTS (Cambridge University Press 2003), http://www.international-ul.com/pdf/ebook/1/_Uyz13PfFMbDE.pdf.

³⁰ See Keith N. Hylton, Property Rules and Liability Rules, Once Again (Boston) University School of Law, Working Paper Series, Law and Economics, Working Paper No.-5-07).

perception of access to information has dramatic effects on the most core of traditional IP thinking: property and exclusivity.

The infinite information resources that the internet provides give further impetus to a shift in ideological views on who owns information materials, ranging from the concept that ideas and information should be completely free–unprotected and unrestricted–to the belief that intellectual property laws should remain the ultimate means of regulating who can and should get access to information, and at what price. It is this constant legal and societal battle that forces traditional providers of information, publishers and writers, composers, entertainers, film-makers and inventors alike, to change their business models over time. Again, this search towards the boundaries of private ownership where concepts of "property" and "exclusion" are the main themes will have serious implications on what intellectual property law will look like over time. ³¹

For advocates of the commons model,³² the legacy of the internet's development provides even further reason for questioning the durability of broad intellectual property protection as a means of spurring innovation.

G. Power Shift in IP Public Policy

Lastly, the shifting political power towards emerging economies in the BRIC countries as discussed above has a deep impact on legislative processes and global IP enforcement. As the history of TRIPS shows, a handful of powerful industries were able to force countries to adapt their IP laws so as to align them with Western concepts of intellectual property enforcement. Unilateral legislative initiatives use compulsory licensing to break patent monopolies on medicines deemed crucial for public health in developing countries. India's government in May 2012 authorised a drug manufacturer to make and sell a generic copy of a patented Bayer cancer drug, arguing that Bayer charged a price that was unaffordable by most of the nation. Although the decision by the India Controller General of Patents, Designs and Trademarks was not

³¹ See, e.g., Robert P. Merges, Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations, 84 CAL. L. REV. 1293 (1996).

This is a model whereby multiple contributors ("commons") or authors share their work, without individual authors claiming copyright, yet providing the "commons" to license the use of the entire work back to both the contributors as the general public.

³³ See Dipika Jain & Jonathan J. Darrow, An Exploration of Compulsory Licensing as an Effective Policy Tool for Antiretroviral Drugs in India, 23 HEALTH MATRIX 425, 441-43 (2013).

the first time a so-called compulsory licence of a patented drug had been granted in India, many believe this opens the door to a flood of other compulsory licences creating a new supply of cheap generic drugs. This evidence of an increased self-consciousness is a clear sign of a power shift in intellectual property public policy.

H. Changes in the Private IPR Domain

In the private domain it can be seen that intellectual property concepts—long held to be the cornerstone of the legitimacy of that part of the law—meet increasing criticism questioning whether intellectual property has a future at all. It is undeniable that the form of intellectual property we have been taught at law schools and propagated by institutions, governments and multinational corporations and IPR practitioners—a system of complex statutorily defined property rights—is in dire need of reconstruction. The future of intellectual property is at stake. No longer can the IPR establishment—current users of IP systems and lawmakers who have been proliferating the advantages of IP—rest on their laurels and rely on fundamentals that have guided them for centuries: that patents reward inventors by granting them a monopoly for a limited time in exchange for the patentee disclosing his invention so that others can rely and build on his work, thus fostering innovation as a theme that slowly develops into anathema.

Criticism of the relationship between innovation and patents is increasing and certainly no longer limited to the academic world. As a result of modern technology, children of the information age hold different views on "openness" and "free (available) information." The general idea is simple enough, as Robert P. Merges describes in his recently published book "Justifying Intellectual Property." Digital media, driven by the internal logic of widespread availability and network effects, will flourish better and better serve the goals of the intellectual property system if digital content, and the platforms that carry it, are freed from property based limitations. Merges' book is a legal and philosophical work in search of the best answers to these "openness" and "commonality" trends. He defends the idea that IP protection is in no way inconsistent with the promotion of a flourishing environment for digital media; quite the contrary: IP rights are essential to this goal.

³⁵ See Robert P. Merges, Peter S. Menell, Mark A. Lemley, & Thomas M. Jorde, Intellectual Property in the New Technological Age 122 (Aspen Publishers 1997).

³⁴ See ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY (Harvard University Press 2011).

I. Alternatives to Property-based IPR Systems

Alternatives have been proposed to intellectual property as a right based on property that allows the owner to "exclude" and "control." ³⁶ IP laws that favour liability rules have been proposed as an alternative to exclusion. Property rules, as the name suggests, secure "entitlements" (like an injunction against a party that uses the patented invention or the trademarked sign or the copyrighted work or monetary compensation—a royalty) as "property." To secure something as property, the rules must effectively prohibit others from taking or damaging the entitlement without first gaining the consent of the owner. Liability rules, on the other hand, neither seek to provide the security of a property rule nor seek to force those who would take or damage an entitlement from first obtaining consent from the IP right owner, but rather constitute a (legal) obligation or infringement to remedy the use, by paying a reasonable price or "rent" in economic terms.

Jerome Reichman is the leading proponent of using liability rules to address problems concerning the protection of traditional knowledge and subpatentable inventions. The proposed compensatory liability scheme, second comers will be required to pay equitable compensation for borrowed improvements over a relatively short period of time. As Reichman explains, such an alternative regime has several benefits. For example, it could stimulate investment without chilling follow—on innovation and without creating legal barriers to entry. Such a regime would also go a long way toward answering hard questions about how to protect applications of traditional biological and cultural knowledge to industry, questions that are of increasing importance to developing and least-developed countries.

III. Conclusion

Whatever the outcome of academic research into alternative IP systems, the future of intellectual property will be in large part dependent upon the actors in the IP field themselves. No remedy to a failing IP system can be found in new legislative initiatives, as is shown by the legislative process to create a new unified European Patent Court. As Jonathan Koppell shows in

³⁶ See, e.g., Andrew W. Torrance & Bill Tomlinson, *Property Rules, Liability Rules, and Patents: one Experimental View of the Cathedral*, 14 Yale J. of L. & Tech. 138 (2011).

³⁷ Sub-patentable inventions are inventions falling below the conventional criteria for patentability. *See*, *e.g.*, J.H. Reichman, *Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation*, 53 VAND. L. REV. 1743 (2000).

³⁸ See id.

³⁹ See id.

⁴⁰ See id.

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his book World Rule, Global Governance Organisations like WIPO, the WTO and other legislative bodies entrusted with international IP legislation, tend to face trade-offs between legitimacy and authority, often violating democratic norms, sacrificing equality and bureaucratic neutrality, to satisfy key constituencies and thus retain power. 41 So it is not altogether that strange that no major new treaties on IP can come off the ground. As a result, inequalities caused by intellectual property "ownership" and "exclusivity" in the public domain will most likely in the future not be remedied by more internationally agreed legislation: for example, a change in TRIPS, but rather by domestic and case law, local legal initiatives and common practices. In the private domain, we have already seen the emergence of a new "openness" in intellectual property evidenced by a "Commons" approach of Open Source in copyright and, in patent law, the Patent Commons Project initiative launched in 2005 by the Open Source Development Laboratories (OSDL). Furthermore, we will see a growing number of limitations in national case law around the world where the exercise of intellectual property-based ownership and exclusivity claims will make way for liabilitybased remedies. We can expect to get more differentiation between fundamental advances in knowledge and logical extensions of existing knowledge or incremental improvements that will, over time, receive a different kind of intellectual property protection. Societal needs to breach the "exclusivity" rule in intellectual property for the greater good (access to information, basic research, exemptions on patentable subject matter, resistance against overly long copyright term protection and other restrictions of IP exclusivity) will, as we expect, force the judiciary to allow much more room to exceptions to ownership and exclusivity in intellectual property in the future.

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⁴¹ See Jonathan GS Koppell, Accountability, Legitimacy, and the Design of Global Governance (University of Chicago Press 2010).

HOW WILL EBAY V. MERCEXCHANGE AFFECT PRELIMINARY INJUNCTION?

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ABSTRACT

In eBay Inc. v. MercExchange LLC, 126 S.Ct. 1837 (2006), the Supreme Court unanimously held on May 15, 2006 that a permanent injunction under the Patent Act, 35 U.S.C. § 283, is to be granted under the "principles of equity," traditionally used by the courts of equity instead of the prior Federal Circuit's presumption that an injunction must be issued, "absent a sound reason for denying it." This paper explores the injunction relief cost problem between patentee and patent infringer after the eBay case. From a patentee's standpoint, their purpose in bringing the patent litigation is to obtain royalties or compensatory damages, and to immediately exclude damages caused from patent infringement. On the contrary, a patent infringer's basic desire is to obtain a beneficial position during the process of negotiation and end the litigation for a minimum cost. In order to equitably and rationality distribute cost between patentee and patent infringer, I propose four different methods of economic analysis of the preliminary injunction. These approaches are likelihood of success, patentee's damage and award compensation, the influence of the court that issued the preliminary injunction and transaction costs.

Keywords: Principle of equity; Patent Litigation; Patent Infringement; Preliminary Injunction; Transaction Costs

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I. Introduction to the Patent System and Preliminary InjunctionA. Patent system

Intellectual property represents a proprietary right in products of the human mind, often referred to as "knowledge goods," such as inventions, ideas, information, artistic creations, music, trademark, celebrity persona, industrial secrets, and customer lists. Patent is a form of legal protection for intellectual property.

1. Patent Right

The patent applicant must be an inventor or the inheritor of an inventor. Employers can require, according to the employment contract, that their employees to transfer the patent obtained during their work to employers, and employers who then file an application with the U.S. Patent and Trademark Office ("PTO") become the patent title owners. If two persons create a similar invention, U.S. Patent law protects the person who first applies for the patent right to the PTO.

The other person cannot get any protection, no matter who creates the invention first. Therefore, the date of the patent application is the legal date of the invention. Conversely, in other countries, the person who invents first could obtain the patent. Therefore, it is possible that one person who invents first and gets the patent right in other countries cannot get the same right in the U.S. because another person has already applied for the patent prior to him in the U.S.²

2. Incentive Theories and Rent-Seeking

Whether it is a first-to-invent system or first-to-file system, the design of the patent system adopts incentive theories. That is to say that the patent system is used to promote innovation and national economic development. That means the government issues the patent to cause an artificial monopoly and ensures the inventor can obtain the benefit and offer the economic inducement of innovation. On the other hand, obtaining the patent right in itself is similar to rent-seeking. Rent-seeking means that the person employs resources to obtain benefits from others.³ The patentee employs the research capital to obtain the patent right. It is possible that other patentees also invest in much capital to get the same result as someone who has already invested. The only difference is that the other patentee may have finished the research and development process slightly later or filed for an application later than

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¹ JANICE M. MUELLER, AN INTRODUCTION TO PATENT LAW 5-10 (Aspen Publishers 2006).

² 35 U.S.C. § 102.

³ DAVID D. FRIEDMAN, LAW'S ORDER: WHAT ECONOMICS HAS TO DO WITH LAW AND WHY IT MATTERS 36-8 (2001).

the first filer. When corporations waste capital on the similar research and development to obtain artificial commercial monopolies, this kind of behavior will not increase social resources. Some corporations, moreover, hold the psychology of "be the first and win first." They do not spend capital on researching and developing products, instead investing in relatively low-innovative patents, causing a waste of social resources, even influencing the foundation of the patent system itself.⁴

Therefore, the goal of the patent system is to strike a balance between incentive theories and rent-seeking. The purpose of designing the patent system is to encourage innovation, but some results from positive analysis show that the current patent system cannot reach the desired effect of stimulating innovation. In addition, exclusionary patent rights encourage rent-seeking behavior. Although most view a patent as a right to exclude, the exact remedy that is available in real cases leaves open the question of how seriously this right is enforced. The legal foundation for patent rights is weak relative to that for property rights.

B. Preliminary Injunction

The Supreme Court's *eBay* decision relates to a permanent injunction. However, it is common for permanent and preliminary injunctions to have a legal basis in Patent Act, 35 U.S.C. § 283, and for injunctions to be an act of equitable discretion by the district. Therefore, this part first briefly explains procedures for preliminary injunction, and then considers the influence of the eBay Supreme Court decision on preliminary injunction to examine actions that an alleged infringer may takes in response to a patentee's requests for preliminary injunction.

1. Proceeding for Preliminary Injunction

A preliminary injunction is granted only for the period from before or during a trial to the final and binding decision, in order to maintain the status quo and prevent irreparable harm. With regard to procedural rules, Rule 65 of the Federal Rule of Civil Procedure has a general rule which regulates notice to applicants, ⁶ the requirements for the issuance of a temporary restraining order, ⁷ the security provided by applicants and the requirements for the issuance of a preliminary injunction. Preliminary injunctions are

⁴ Robert P. Merges, As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform, 14 Berkeley Tech. L.J. 593 (1999).

⁵ Josh Lerner, *Patent Protection and Innovation over 150 Years*, Am. Econ. Rev. 92 (2) 221, 225 (2009).

⁶ See Fed. R. Civ. P. 65(a) (1) ("Notice. No preliminary injunction shall be issued without notice to the adverse party.").

⁷ See Fed. R. Civ. P. 65(b) (temporary restraining order).

granted only in clear cases, based on affidavits or a verified complaint and after notice to the adverse party. Preliminary injunctions require the showing of (1) likelihood of success on the merits, (2) irreparable harm absent injunction, (3) balance of hardships favoring injunction, and (4) public policy favoring injunction. The district court must consider the factors and balance all the elements; no one factor is necessarily dispositive.

2. Determination Standards for Preliminary Injunction and Influence of the Supreme Court's *eBay* Decision

As mentioned above, a preliminary injunction is a special remedy to protect patentee against allegedly infringing acts conducted during the proceedings. After *Smith International, Inc.*, the Federal Circuit announced four factors to take into consideration: ¹⁰ (1) whether the applicant has proved the reasonable possibility of winning the litigation on the substantive dispute; (2) the extent of harm and damages occurred if the court does not authorize the preliminary injunction; (3) whether the damage and harm imposed on the patent owner is greater than the harm caused by the issuance of preliminary injunction to the alleged infringer and; (4) whether authorizing the preliminary injunction is beneficial to the public welfare. ¹¹ After this case, the Federal Circuit court advised the district courts to utilize these four requirements in making the decision of whether to issue preliminary injunctions.

In this section, the word "standard" is used instead of the word "factor" for the following reason. For a permanent injunction, the eBay Supreme Court decision clearly articulated that the patentee shall prove that it has the advantage in all four factors. Although it is a prerequisite for granting a preliminary injunction that the patentee has the advantage in the first and second standards, advantages in the third and fourth standards are not always pre-requisites. ¹² This point has not changed remarkably, even after the eBay case.

Moreover, with respect to preliminary injunction, if a patentee fulfills the

⁸ Tate Access Floors, Inc. and Tate Access Floors Leasing, Inc. v. Interface Architectural Resources, Inc. 279 F. 3d 1357 (Fed. Cir. 2002).

⁹ Smith Int'l Inc. v. Hughes Tool Co., 718 F.2d 1537, 1579 (Fed. Cir. 1983). See also Hybritech, Inc. v. Abbott Labs., 849 F.2d 1446, 1451 (Fed. Cir. 1988) (explaining that the preliminary injunction "factors, taken individually, are not dispositive; rather, the district court must weigh and measure each factor against the other factors and against the form and magnitude of the relief requested").

¹⁰ Smith Int'l, Inc., 718 F.2d. 1573.

¹¹ *Id.* This standard has been confirmed again in *H.H. Robertson Co. v. United Steel Deck, Inc.*, 820 F.2d 384 (Fed. Cir. 1987).

¹² Reebok International Ltd. v. Baker, Inc., 32 F.3d 1552 (Fed. Cir. 1994).

first standard, a presumption of determination on the second standard will arise in favor of patentee. ¹³ This is also different from the case of a permanent injunction. Since there occasionally are cases where fulfillment of the second standard is presumed even after the eBay case, ¹⁴ it can also be said that preliminary injunction has not been much influenced by the Supreme Court. ¹⁵

As mentioned above, it can be said that preliminary injunction has not been influenced by the eBay Supreme Court decision though its legal basis is the same as that of permanent injunction. "When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest. In addition injunctive relief may have different consequences for the burgeoning number of patent over business methods, which were not of much economics and legal significance in earlier times." The "potential vagueness and suspect validity" of some business-method patents, Justice Kennedy said, might well affect the analysis under the four-part test.

II. An Economic Analysis of the Law of Patent Litigation

From the viewpoint of economics, the patentee's purpose in bringing patent litigation is to earn a profit. Therefore, we can regard patent litigation as a kind of business transaction. The essence of business transactions is that both parties can obtain benefit from a transaction. ¹⁸ Therefore, business transactions can be finished when both of the parties believe that they have obtained benefit from a certain trade. The litigants in patent litigation seem to be engaged in a business transaction, even if the definition of benefit varies with each litigant, but only if both litigants believe that they can benefit from this business transaction will litigation come to a close. In other words, whether patent litigation is filed and how long it will go on depend on both parties believing that they can profit from the business transaction. ¹⁹

Patent litigation is usually a high-stakes game, especially for a company found to be infringing on another's intellectual property. Obtaining a judgment on a patent litigation takes a long time, and there are myriad

¹⁸ Carl Menger, *Principles of Economics* (N. Y. U. Press 1981).

¹³ Smith Int'l, Inc., 718 F.2d. 1575.

¹⁴ Christiana Indus. Inc. v. Empire Electronics, Inc., 443 F. Supp.2d 870, 884 (E.D. Mich. 2006).

¹⁵ Sanofi-Synthelabo v. Apotex Inc., 550 F.3d 1075 (Fed. Cir. 2008).

¹⁶ eBay, Inc. v. MercExchange, L.L.C., 126 S. Ct. 1842 (2006).

¹⁷ Id.

¹⁹ Ronald H. Coase, *The Nature of the Firm*, Economica 4 (16) 386, 405 (1937).

variables during the process. In addition to paying millions of dollars in damages, there is also the very real possibility of an injunction forcing a company to stop selling an infringing product. A preliminary injunction is a final court order that a party ceases certain activities permanently or performs certain acts. In order for a preliminary injunction to be issued, the patentee must show evidence of an underlying harm. All of these factors will influence the patentee and the patent infringer's willingness to engage in patent litigation. The elements in processing patent litigation under normal conditions can be expressed by the following formula:

$$Pp \times (Dp + Ip) - (Cp + Tp) > Pd \times (Dd + Id) + (Cd+Td)$$
 (Formula One)

Pp is the patentee's opinion of the likelihood of success; Dp is the patentee's opinion of awarded compensatory damages after succeeding in the litigation; Ip is the patentee's opinion of awarded profits when obtaining the preliminary injunction; Cp is the patentee's expectation expense for lawyers and litigation during the litigation process; Tp is the patentee's expectation of other costs during the litigation process; (Cp + Tp) is patentee's expectation of transaction cost during the litigation process. Additionally, Pd is the patent infringer's opinion of patentee's likelihood of success; Dd is the patent infringer's opinion of amount to be awarded to the patentee in compensatory damages if successful in litigation; Id is the patent infringer's opinion of the loss when patentee obtain the preliminary injunction; Cd is the patent infringer's expectation expense of lawyers and litigation during the litigation process; Td is the patent infringer's expectation of other costs during the litigation process; (Cd + Td) is the patent infringer's expectation of transaction cost during the litigation process.

Therefore, in patent litigation, the patentee's expectation of net income $Pp \times (Dp + Ip) - (Cp + Tp)$ is the patentee's expectation of obtained compensatory damages due to the judgment $Pp \times (Dp + Ip)$, while also deducting the patentee's expectation of transaction cost during the litigation process (Cp + Tp). The infringer's expectation of net litigation expense, $Pd \times (Dd + Id) + (Cd + Td)$, is that expectation of compensation which the infringer needs to pay for the damage due to judgment, and (Cd + Td) adds to the infringer's expectation of transaction costs during the litigation process.

As mentioned above, it can be said that patent litigation proceeds when the patentee's expectation of litigation net income is greater than the patent infringer's expectation of litigation net loss. From the standpoint of a business transaction, the patentee's expectation of litigation net income is equivalent to the patent infringer's expectation of litigation net loss. Such a business transaction will fail, in that the seller's expectation of income is higher than the buyer's expectation of expenditure. That is to say, the patentee's expectation of income is higher than the amount of money that the infringer is willing to pay, causing the transaction between the two sides to break down.

Moreover, the factors of influence are more complicated in patent litigation because of the characteristics of a patent, such as uncertainty and short product lifespan. The coming sections will further discuss likelihood of success, patentee award compensation for damages in favor of judgment, the influence of court-issued preliminary injunctions, and transaction costs.

A. Likelihood of Success

In general, the probability of winning litigation for the patentee and the patent infringer is always different. Both parties are unable to get all the information from the other party because the information is closed. Even if all information is disclosed, both parties may not have the same cognition and understanding about the information. Additionally, the more important issue is that both parties have different expectancies about how the court will judge the information. Furthermore, a different judge will have different judgments. The main reasons of uncertainty in these factors are as follows:

1. The Validity of a Patent

The patentee certainly thinks that the court will infer the patent right is valid after the patentee obtains the patent right. In fact, the proportion of revoked patents is more than 30 percent. Therefore, both parties in the patent litigation always dispute whether the patent is valid, and it is hard to get a common consensus until the court makes the judgment.

2. The Court Defines the Claim of the Patent

Even though the patent right's validity has been determined by court, claims of patent rights are not as clear as general property rights. Therefore, both parties in patent litigation have their own opinions about interpreting the claims of patents before the court determines definite right. Moreover, the courts have limited understanding about sunrise industries and frequently differ about claims of rights, which will influence the probability of judging which party wins the litigation.

3. The Product is Infringed or Not

To win the litigation, the patentee must prove that the patent right is valid and demonstrate the validity of the claim of the patent, and must also prove that the other party has infringed the claim of patent. First of all, the patentee must understand what kind of technology the infringing product utilizes and how this works with its patent right. Nevertheless, the patentee will have a hard time getting the information from the patent infringer about the infringing product. Thus, the court and both parties will find different facts and receive different information during the litigation. Of course, this will influence their determination as to the likelihood of success in the litigation.

According to the above, the judicial process will expose more information during the processing of litigation. In summary, the courts will determine the validity of the patent based on the claims of each party, thus influencing the patentee's and patent infringer's expectation of probability of success in the litigation.

B. Patentee Award Compensation for Damages in Favor of Judgment

In patent litigation, the patentee obtains the benefits of a favorable judgment, which include the patentee obtaining compensatory damages and benefits due to being granted a preliminary injunction. The patent infringer's expenses in an unfavorable judgment include patentee's compensatory damages and the infringer's disadvantage due to preliminary injunction.

The court's calculation of compensatory damages includes the patentee's damages and lost profits as well as the infringer's obtained benefits from this infringement. The standards of compensatory damages cover three common situations:

1. Patentee's Damages and Lost Profits

The infringement may reduce the patentee's profit, because of either (1) diverted sales or (2) price erosion. To compete with the infringer, the patentee may reduce the price or give up raising the price to make lower profits. However, the lower price will result in increasing volume of sales, so the patentee must calculate increased volume of sales due to lower price along with (3) additional costs, such as advertisement, (4) projected lost profits, (5) damage of patentee's goodwill in the market place due to the infringer's low-grade product; and (6) loss of market monopoly. When the patent expires, the patent infringer will get into the market fast, and the patentee will lose the advantage of a monopolized market. The last three types of patentee damages and lost profits are usually too far-reaching to consider.

Therefore, when the patent infringer sells a lower-price infringing product, the patentee's product cannot sell or must be sold at a lower price (decreased income). The patentee even needs to add variable cost to sell the product (increased cost) which reduces the original profits. The calculation of decreased income can be proved by the patentee. For example, this can be found by calculating the retail price of the patent product minus cost of patent product.

2. Patent Infringer Obtains Profits from this Infringement

A patent infringer obtains profits from this infringement which can be calculated from the amount of infringing products multiplied by each unit's profit. The amount of infringing products is calculated from the date on which the infringer was informed of patent infringement to judgment. The court estimates infringer's amount of infringing product through material evidence, such as purchase orders. In general, this is calculated from the infringing product's original price. However, it is difficult to prove the sales amount of the infringing product. On the other hand, the accounting price and pricing are always have variability. Therefore, the court will consider a range of profits.

To recover lost profits damages for patent infringement, the patent owner must show that it would have received the additional profits "but for" the infringement. The patent owner bears the burden to present evidence sufficient to show a reasonable probability that it would have made the asserted profits absent infringement. In patent litigation, the court judges whether the patentee has the right to calculate the loss of profit according to the infringer's income. The courts usually adopt the standard which was raised in the *Panduit* case. To obtain as damages the profits on sales the patentee would have made absent the infringement, *i.e.*, the sales made by the infringer, a patent owner must prove: (1) demand for the patented product, (2) absence of acceptable non-infringing substitutes, (3) the patentee's manufacturing and marketing capability to exploit the demand, and (4) the amount of the profit the patentee would have made. If the patentee can prove the four points above, then the court in *Panduit* held that patentee can be awarded compensation which is equal to the infringer's foreseeable loss.

3. Reasonable Royalty

Reasonable royalty is the lowest limited compensation for damages in patent litigation, and it can coexist with lost profits. From the viewpoint of economics, when an agent would like to manufacture or sell a patent product to create reasonable profits, he agrees to pay a royalty for permission to do so. The court calculates the amount of compensation for damages on the marketing change from the beginning of patent infringement to end of the litigation. Basically, the court hopes the patent infringer will bear the patentee's economics profits lost during the term of infringement. The court will hold the judgment that the patent infringer needs to pay some money to

²⁰ King Instruments Corp. v. Perego, 65 F.3d 941, 953 (Fed. Cir. 1995).

²¹ Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152 (6th Cir. 1978).

²² Rite-Hite Corp. v. Kellev Co., Inc., 56 F.3d 1546 (Fed. Cir. 1995).

cover for the patentee's economic profit lost. That is to say, the part of the loss which can be proved is real profits lost, and the other part of lost which cannot be proved should be applied to the reasonable royalty.

35 U.S.C. § 284 provides, "Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with profit and costs as fixed by the court." According to the description of clause described above, the reasonable royalty is regarded as compensatory damages. ²³

As an analytical approach in patent litigation, the amount of reasonable royalty is the patent infringer's expected profit margin to deduct normal profit margin. The reasonable royalty calculation principle can adopt the Georgia-Pacific factor to carry on assessment, including the amount of profit-making from infringing products, the appropriate share of a profitable market, and the royalty rate in this technical field. ²⁴ Therefore, the reasonable royalty rate can be calculated by the present gross profit rate deducted from industry standard net profit. ²⁵

According to the discussion above, the patentee obtained profits due to a favorable judgment under this calculation method. The court's intention is to adopt standards of compensatory damages, with the disclosure of patentee's damages or lost profits and other patentee information being key points. If the court's calculations are based on the patent infringer's obtaining profits, then the infringer's information can validate this key point. On the contrary, if the court bases its calculations on reasonable royalty, then the patentee's information can validate this key point. Because authorized contracts are usually not disclosed to third parties, general authorized contract is always not limited to monetary transactions.

C. The Influence of Court That Issued the Preliminary Injunction

A preliminary injunction is entered before trial, that is, before a complete adjudication on the merits of the infringement issue. ²⁶ A preliminary injunction is a provisional injunction issued pending the disposition of a litigation, the purpose of which is to "preserve the status quo and to protect the respective rights of the parties pending a determination on the merits." ²⁷ However, the influence is multidimensional, and the influence degree can only be conjectured based on the existing materials. Thus, it is hard to

²³ 35 U.S.C. § 284.

²⁴ Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1119 (S.D.N.Y. 1970).

²⁵ TWM Mfg. Corp., v. Dura Corp., 789 F. 2d 895 (Fed. Cir. 1986).

²⁶ Mueller, *supra* note 1, at 5.

²⁷ Id. at 6.

evaluate.

Preliminary injunctions in patent infringement cases have been developed for a long period of time in the United States. It has become an effective tool to protect patentees. When patent owners have a dispute with other parties with respect to patent infringement, prior to final judgment by the court, they can request the court to issue a preliminary injunction to prohibit patent infringers from continuing the manufacturing or production of infringing products, and even order the patent infringer to recall all the outstanding products in the market. The preliminary injunction may be the most striking remedy wielded by contemporary courts. ²⁸

Once the court issues the preliminary injunction, the influences of the preliminary injunction include not only the infringer being unable to successfully produce the goods and sell them to customers, but also damaging public goodwill toward the infringer, which causes the company to have difficulty doing business in the future. All of these are negative losses. Moreover, neither the court nor the litigation parties are able to obtain all of the information to judge the losses; the litigant itself can only, based on its own situation, estimate the influence of the injunction. The value of a preliminary injunction to patentee and patent infringer is influenced by many factors, including the timing of obtaining the preliminary injunction, the development plans of both parties (such as royalty or market share enlargement), the used circumstance of patent, the marketing situation of using the patent in products, and the ability for marketing development, such as whether the patentee can absorb the infringer's original market share. Under many situations, the preliminary injunction's menace to enterprises is greater than compensatory damages.

D. Transaction Cost

The transaction cost is the time and energy needed in a business transaction. The transaction cost includes the various resources of consults and the costs of performing the contract, including the cost of collecting the information about persons with whom to trade and determining trading strategies, the cost and time of negotiation, and the cost of performing the negotiated result after finishing a business transaction. Whether each transaction can make a profit and how much profit each transaction can make are related to the transaction cost. The obstacle to making a profit will be higher when transaction cost is higher.

Basically, the purpose of property law is promoting private consult. Therefore, the design of property law should exclude obstacles to private

 $^{^{28}}$ John Leubsdorf, *The Standard for Preliminary Injunctions*, 91 HARV. L. REV. 525 (1978).

consult and reduce the damages of failed private consults. ²⁹ From the perspective of economics, the obstacles to private consult are a kind of transaction cost. The initial property right is defined to one party, and the final property right should stay with the original party when transaction cost is too high to proceed with private consult. In other words, how to effectively utilize resources depends on the law and how to determine the ownership of property rights. Under the situation of no transaction costs, no matter which party the initial law defines the property right to originally, resources will flow to the party which values the resource highest under voluntary trading. On the other hand, under the situation of transaction cost, the property right will still flow to the party which values the resource highest if the transaction cost is not high enough to hold back the business transaction. Persons in the transaction cost situation will certainly get lower net benefit than in the no transaction cost situation because transaction cost will decrease the transaction net benefit.

A high transaction cost will hold back the market and obstruct the free flow of right, but a low transaction cost will make the market work more effectively. That is to say, if the market is unable to distribute the legal right effectively, legislators should legislate to reduce transactions cost in order to encourage efficient private trade which involves legal right exchange. Because of the uncertain characteristics of patent right, the law makes it difficult to award patent rights to the party which finds them most valuable. In addition, how people look at the value of patents is constantly evolving. Therefore, the design of the law should reduce the transaction cost of patent right litigation in order to fully protect patents in society.

1. Transaction Cost of Patent Litigation

Generally speaking, the transaction cost of patent litigation includes economic costs and opportunity costs. Economic costs can be divided into necessary costs, such as lawyers' expenses, litigation expenses, and other costs. To the patentee, other costs include the patent application cost, the patent maintenance cost, and the expenses to prove the other party has infringed. To the patent infringer, other costs usually include the expenditure on products to avoid infringing, possible business loss, or required discount by customers. Even when the result of the judgment is in favor of the patent infringer, the above costs will not disappear, and it is difficult to give proof to transfer to the patentee. Opportunity costs refer to the specific time and resources which are put into litigation, and that cause a party to be unable to move those resources to fund other endeavors, such as research and development or business activities.

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²⁹ ROBERT B. COOTER, JR., LAW AND ECONOMICS 290-95 (5th ed. 2011).

When a patent infringer gets involved in patent litigation, unless the infringer has confidence that the product did not infringe, the first consideration is whether the product needs to avoid an infringing design because designing the product to avoid infringement is time consuming. For example, IC products generally take more than one year to evaluate, design, and verify a product, and including authenticating with customers. That is to say, the patent infringer needs to reserve more than one year of job time before judgment. On the other side, the court always issues the preliminary injunction if the judgment is unfavorable to the patent infringer and prohibits the infringed product from continuing to be sold on the market. Because of the uncertain results of litigation, the patent infringer affects not only the potential public goodwill, but also causes the customer who may order the product from other companies to verify the source or require a discount. This can seriously affect a company, especially a newly developing one, because the initial order will bring income to the company and accumulate experience to earn the customer's trust and continue using the product.

2. The Economic Cost in Transaction Cost

The economic cost in transaction cost is positively related to litigation time. For example, lawyers' expenses are calculated and charged based on the amount of dealt time. Other costs of the patentee, including the patent application, maintenance cost (renewal fees) and the expenses of proving an infringed product, will increase slowly following the time of the litigation. However, for other costs of the patent infringer, the expenditure of designing products to avoid infringement holds a high percentage in initial gradation of the litigation, while possible business loss or demanded discounts may become serious following litigation.

According to the above analysis, both parties' transaction costs will increase during litigation. As this process moves forward, the infringer can foresee that transaction costs will rise; therefore, the infringer is motivated to settle the dispute at the onset of litigation. On the other hand, the patent infringer cannot gather the information related to the patentee and the judgment of the court; therefore, if the patent infringer believes that the patentee has a lower percentage chance to win the litigation, the infringer will not compromise with the patentee. In later periods of litigation, even before the judgment, both parties will have a close evaluative percentage of winning the litigation, and then the both parties will reduce their percentage of wishing to continue with litigation.

III. An Economic Analysis of the Law of Preliminary Injunction

When legal rights are infringed, the court often makes decisions to determine what the most efficient relief system is based on degree of cooperation among the parties. When the party participants were uncooperative, then the court will grant compensatory damages directly. When the participators of the parties intend to cooperation, then the court will issue preliminary injunction to the patentee. The parties of litigation are usually not too many, and they are in a competitive relationship and known to each other. From an economics standpoint, filing a motion for preliminary injunction is an efficient method.

A. Motivation for Preliminary Injunction

The patentee's purpose in filing for patent litigation can be divided into two types. The first type of purpose is to obtain the royalty. Such situations usually happen for patentees who own the patent right, but have already faded out of the market or who own the patent but do not manufacture and use the patent itself. In this situation,, the ends which the patentee cares about are royalties and compensatory damages. To file a motion for preliminary injunction is a means to this end. The other purpose is to strengthen a business market, in which a patentee uses a patent right to attack a competitors' development or even to exclude them from the market. In this situation, the patent holder does not care about compensatory damages but rather cares about filing a motion for preliminary injunction. However, preliminary injunction is the most preferred remedy method by both patentee and patent infringer because it can exclude relative behavior in the future. The preliminary injunction, especially, has a prompt character which can immediately exclude the patent infringer's relative behavior and cause obvious and immediate pressure.

The above paragraphs explain that the patentee filed the patent litigation, which is a general situation to seek the final remedy. Because the product which is involved in patent litigation has a short product lifespan, the preliminary injunction is one of the manners of remedy which the patentee utilizes in order to keep the time effect and to reduce the affects of an uncertain legal relationship to both parties of litigation and public interest. However, the preliminary injunction is only one part of patent litigation. When both litigators face the relief of injunction, they are also evaluating based on the whole litigation. In other words, both litigators use and respond to injunction relief based on the influence of the whole litigation. For example, the patentee will still intend to file for preliminary injunction even if the patentee evaluates that the infringer's infringing act will not cause unavoidable injury in the future. It is low cost and high probability of award because it will pressure the infringer's business and negatively impact their public goodwill.

B. The Foundation of Economic Analysis of Preliminary Injunction

The foundation of economic analysis of preliminary injunction is that the judge considers various uncertainty factors, then the judgment reduces the expectation of damage and employs the idea of risk management to appropriately distribute the burden.³⁰

The patentee's damage expectation of preliminary injunction is the patentee's loss and decreased profits if the patentee fails to obtain a preliminary injunction (Dp) multiplied by the courts assessment of the patentee's likelihood of success in litigation (Pj). The patent infringer's loss and decreased profits are considered if the court enforces a preliminary injunction on the infringer (Dd), which is then multiplied by the infringer's damage expectation of preliminary injunction, based on the court's assessment of the infringer's likelihood of success in this case (1 - Pj). The court should issue preliminary injunction to the patentee if the patentee's damage expectation of preliminary injunction is greater than the patent infringer's damage expectation. On the contrary, the court should not issue a preliminary injunction to patentee.³¹ The formula for issuing a preliminary injunction is as follows:

$$P_j \times D_p > (1 - P_j) \times D_d$$
 (Formula Two)

From the viewpoint of the court, deciding whether to issue a preliminary injunction is based on initial gradation of litigation and limit information. Therefore, according to purpose of balance, the court will agree to issue a preliminary injunction when the patentee's expectation of damage (Pj x Dp) is obviously greater than the patent infringer's expectation of damage ((1 - Pj) x Dd).

C. The Foundation in Economic Analysis of Involved Litigation

From the viewpoint of involved litigation, the time at which the patentee files a motion for preliminary injunction will influence both parties' attitude and will to compromise during the decision process. Certain conditions of patent litigation that continue the process and add to the consideration for preliminary injunction, as can be shown as follows:

$$Pp \ x \ (Dp + Ip') - (Cp + Tp) > Pd \ x \ (Dd + Id') + (Cd + Td)$$

³⁰ Douglas Lichtman, *Uncertainty and the Standard for Preliminary Relief*, 70 U. Chi. L. Rev. 197 (2003).

³¹ American Hospital Supply Co. v. Hospital Products Ltd., 780 F.2d 589, 593 (7th Cir. 1986) (where Judge Richard Posner stated that "the injunction should issue "only if the harm to the plaintiff if the injunction is denied, multiplied by the probability that the denial would be an error... exceeds that harm to the defendant if the injunction is granted, multiplied by the probability that granting the injunction would be an error.").

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(Formula Three)

Pi is the patentee's likelihood of obtaining preliminary injunction, Kp is the patentee's additional benefit due to issued preliminary injunction (Negative benefit), Kd is patent infringer's loss due to the patentee being issued a preliminary injunction (Negative loss). After the operation process, Formula Three is as follows:

$$(Pp \times Dp - Pd \times Dd) + (Pp \times Ip' - Pd \times Id') > (Cp + Cd) + (Tp + Td)$$
 (Formula Five)

Thus, $(Pp \times Dp - Pd \times Dd)$ is the misunderstanding between patentee's expectation of compensatory damages and patent infringer's expectation during the litigation. That also means a misunderstanding between patentee's expectation of compensatory damages and patent infringer's expectation. If the misunderstanding in expectation is greater, then likelihood of proceeding to patent litigation is greater. (Pp x Ip' – Pd x Id) is the misunderstanding between patentee's expectation of benefit when issued preliminary injunction and patent infringer's expectation of loss when preliminary injunction is issued. During the preliminary injunction decision process, the patentee considers the benefit which can be obtained in litigation that is misunderstood with the patent infringer's opinion of the loss. Patentee considerations may include the potential of obtaining a large benefit from the issuing of a preliminary injunction if the misunderstanding is greater. In addition, the likelihood of the patent litigation process continuing is greater when the patent infringer's opinion of the preliminary injunction will be a small expense. (Tp + Td) + (Cp + Cd) is the sum of transaction cost among patentee and patent infringer, and if it is higher, then likelihood of continued patent litigation is lower.

D. The Foundation of the Court in Economic Analysis of Patent litigation

(Pp x Dp – Pd x Dd) represents the misunderstanding of expectation of compensatory damages between patentee and patent infringer due to the issued preliminary injunction process involved litigation which includes the discovery process and Markman Hearing. In addition, the judge will explain the claim of patent right and determine whether the product is infringed. Therefore, both parties will further understand the opposite party's related information and judge's judgment. However, those factors will cause the patentee and patent infringer to expect the patentee's likelihood of success to

come into balance. In essence, Pp and Pd move toward equality. Therefore, a formula can be created to calculate compensatory damages from the judge's formula of calculation bonds and further understand Dp and Dd. On the other hand, the information from the discovery process will make patentee and patent infringer expect patentee's compensatory damages to balance; Dp and Dd move toward equality. Therefore, (Pp x Dp – Pd x Dd) is the court issued preliminary injunction process will reduce misunderstanding expectation of compensation between patentee and patent infringer.

E. The Foundation of the Involved Parties in Economic Analysis of Patent Litigation

(Pp x Ip' – Pd x Id') is the misunderstanding between the patentee's expectation of benefit from obtaining a preliminary injunction and the patent infringer's expected expense. The discussion of Pp and Pd is the same as above. Ip and Id can refer formula forth. (Kp) is the benefit amount the patentee can obtain when being issued preliminary injunction, and can become royalty as a bargaining counter. (Kd) represents the patent infringer's additional cost due to the patentee being issued a preliminary injunction, placing pressure on the patent infringer. Due to counter bonds not being able to be offered to dismiss the preliminary injunction, the influence is obvious when the patentee is issued a preliminary injunction. In patent litigation, the (Cp + Cd) + (Tp + Td) is the sum of the patentee and patent infringer's transaction costs when filing the motion for preliminary injunction, and litigation will increase both parties' costs, which include lawyer expenses, relative expense of litigation, and opportunity cost of bonds.

If the above analysis is correct, one of the factors considers the presence of irreparable injury, which is harm not quantifiable or remediable as money damages. For the factor to be satisfied, it must be determined that damages associated with ongoing infringement are economically incalculable. As a result of this inconsistency, there has been significant uncertainty among litigants regarding the likelihood of injunction following a finding of infringement.

IV. Proposal of Suggestions about Issuing Preliminary InjunctionA. Stand on the View of Transaction

In this regard, it is also necessary to be clear about what valuation standard appropriate for preliminary injunction. Based on the above scenario analysis, it appears consistency may be improved and uncertainty reduced by focusing instead on economically appropriate market indicators of forward-looking damage quantifiability. The court should stand on the view of transaction to solve the dispute of patent rights, and then the patent right can reach the most efficient circulate and practical application. Giving patent

right as an example, the patentee may apply for a patent to make use of this technology to produce at the beginning but cancel this plan after obtaining the patent. This patent is worth less for the original patentee, but this patent right is more important for other manufacturers who plan to make use of this technology. If instituting or executing the legal system causes the patent right's transaction cost to become unreasonable, this patent right will unable to be utilized to its greatest benefit.

One of the purposes of the law is to solve the problem in distributing rights among the parties. The question of distributing rights is always relative. This is especially apparent in the civil litigation case. Patent litigation provides us with many examples of this, except for disputes such as antiquarian patent medicines. Therefore, the judgment of judicial practice in particular stresses patentee's right and profits. Furthermore, patent rights are set up by the government to encourage innovations and patent right, and the government will consider the situation of industry development.

The ways of utilizing legislation to promote the rights includes distributing the legal right to the people who think the right is the most valuable at the beginning and reducing cost to promote private trade in the future. In theory, the dispute of this right will be reduced if distributing the legal right to the people who thinks the right is the most valuable at the beginning. But the patent right cannot be clearly defined as a general proprietary. In addition, the judiciary is unable to receive all information to judge whose right is the most valuable; therefore, it is hard to distribute the patent right to the person who thinks the right is the most valuable at the beginning, and it only can be determined by granting patent rights based on justice of procedure. Additionally, the value of right to everyone will change by different time and circumstance.

B. Reconstruct Market

The courts judge the patentee's lost profits is market reconstruction which is clarification of the availability of the acceptable non-infringing alternatives, benchmark methodology in the context of price erosion damages and elasticity of demand. The Federal Circuit clearly determines that it may accept parties' calculation methods and apply them on a case-by-case basis.³²

A patent litigation case should adopt economics theories (market power, law of demand) which are beneficial to more accurately calculate patentee's profit lost and reasonable royalty. The court adopts the calculated formula of

³² *Rite-Hite Corp.*, 56 F.3d at 1538 ("If there are other ways to show that the infringement in fact caused the patentee's lost profits, there is no reason why another test should not be acceptable").

economics (accounting) which is also addressed by both parties of litigation. Scholars use the economics model to examine related problems about lost profits and reasonable royalty. More than that, they use the viewpoint of economics to discuss idle patent, complementary goods, and limited competition. To calculate the compensation for damages in patent infringement litigation, the court should consider the factors of market economy and then really reflect the condition of market. The courts calculating the patentee's lost profits and reasonable royalty through the economics theories can show its profundity and variety, not only calculating complicated accounting voucher. Therefore, the patentee's damages can be completely displayed and give the consideration to the purpose of legislating patent law and policy.

C. Consider other Factors and Facts

Some preliminary injunction cases take into account some factors other than the four requirements established by the Federal Circuit, such as scale of business of parties, market condition, etc. For example, in *Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys.*, ³³ the Federal Circuit reversed the lower court's decision denying plaintiff's motion for a preliminary injunction in a patent infringement action related to two patents for microfiche jackets. ³⁴ The court held that the district court erred as a matter of law in its construction of the patent claims and in concluding that the decline in the market for the patented products was a factor favoring denial of the preliminary injunction. ³⁵ The district court abused its discretion by relying on extrinsic evidence, in the form of expert testimony, in its claim construction analysis because the available intrinsic evidence--the claims, specifications, and file history--was not ambiguous. ³⁶ The district court, therefore, determined the likelihood of infringement based on an incorrect claim construction.

Furthermore, the lower court took into consideration the relative scale of business in making its decision. The patentee has a large scale of business while the alleged patent infringer's business scale was relatively small. The lower court considered the hardship to the alleged patent infringer should the preliminary injunction be granted, that is, the patent infringer would not be able to sustain its business because of its small scale of operation; therefore, the lower court denied the issuance of a preliminary injunction. However, the Federal Circuit reversed this decision as well. The lower court should not

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³³ Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys., 132 F.3d 701(Fed. Cir. 1997).

³⁵ *Id.* at 704.

³⁶ *Id*.

deny the motion for preliminary injunction only because the defendant might suffer great harm due to its small scale of business. Even though the Federal Circuit recognizes the relative scale of business as one of the factors to be taken into account in making the decision, this factor cannot negate the fact that the defendant did infringe the patent right of the plaintiff. This ruling makes sense because otherwise the court will encourage business of small scale to infringe large companies' patent rights.

D. The Same and Clear Standard of Judgment

In the above discussion, the cognitive differences between patentee and patent infringer are always the most obvious in the initial stages of litigation, and then the cognitive differences between each other will be closer with the litigation. Although the factors as discussed above are different and hard to predict, but everyone's view is absolutely influenced by the court's opinion. As long as the court holds the same and clear standard of judgment, both parties can reach consensus through forecasting. After all, each party's purpose in entering patent litigation is not a quest for truth, but the utilization of a commercial tactic that just so happens to fall under the court's jurisdiction.

Thus, the parties will attempt to construct a result that both sides can accept when the right conflicts among the parties, and this can be regarded as a progress of transaction. The parties may appeal to judicial judgment when transaction consultation cannot reached by common consensus. The purpose of the court judging the right conflict among the parties is to solve the problem of the rights distribution among the parties. Any judgment reached by the courts during the trial process will appear with changing to a form of the transaction cost and further influence the transaction process and result.

The transaction cannot be completed until each side realizes a benefit. Because of this, the main reason that parties continue to dispute is differing calculations of transaction costs. Therefore, the transactions result from conflict between parties' rights. From the court's point of view, the court should work to reduce transaction costs during the trial process. The methods that the court can use to reduce the transaction cost are both parties can reasonably estimate their necessary cost during the litigation process and the court makes both parties reach common consensus and advance the transaction result.

E. Striking a Balance between Protecting the Patent and Fair Competition

As a practical matter, if the monetary compensation can remedy all the harms suffered by the alleged patent infringer without considering whether the infringer might suffer some damages which cannot be compensated by monetary compensation, such as damage to goodwill or competitive status in the market, strict and fair evaluation of the different elements to the patent infringement cases is necessary.

If the evaluation turns out to be over-protective to the patentee, the preliminary injunction may become a "legal" weapon against competitors. However, because it takes a long time to litigate a patent infringement case, the existence of preliminary injunctions is still needed. The system should aim to balance the interest between the patentee and third parties, to avoid the abuse of preliminary injunctions and hinder fair competition.³⁷

After the Federal Circuit was set up, it integrated the used-to-be similar but inconsistent opinions, and created a sophisticated system of evaluating whether to issue preliminary injunctions. That is, the patentee must introduce sufficient evidence to prove the likelihood of winning the lawsuit, and any hardship the patentee will suffer from the failure to obtain a preliminary injunction. After the courts evaluate the hardship to both parties and take into consideration any special reasons that might influence the public interest, the courts will then make a judgment as to whether to issue a preliminary injunction.

V. Conclusion

The *eBay* case has without question reshaped patent litigation strategy. No longer can patent holders presume the issuance of a preliminary injunction absent extraordinary circumstances. The lower courts must now apply the traditional four-factor test which Congress had incorporated into the Patent and Copyright Statutes. Some of the factors that the court must now consider include the following economic factors: irretrievable loss of market share and key personnel, other layoffs, loss of business, loss of goodwill, and even the financial demise of a party. While the chances of a would be infringer to avoid an injunction are better if they are manufacturing but a small component of a larger system and the patent holder is not commercially exploiting the patented invention, it is still dangerous for a would be patent infringer to categorically assume that a preliminary injunction has no chance of issuing in view of the four-factor test. The *eBay* case makes it more difficult, but not impossible, for such patent holders to obtain injunctive relief.

The preliminary injunction can be regarded as a double-edged sword in protecting the interest of the patentee. If the requirements for obtaining a preliminary injunction are too difficult to meet, the interest of the patentee cannot be fully protected. On the other hand, if the requirements are too easy to meet, that is, the standard is too loose, the preliminary injunction may be

³⁷ See Nutrition 21 v. United States, 930 F.2d 867 (Fed. Cir. 1991).

abused by the patentee because of its strong function. Worse yet, it may be used for attacking other competitors, which will seriously influence fair competition. Accordingly, it takes thorough consideration to come up with the required elements in issuing the preliminary injunction in patent infringement cases, and the required elements ought to be fairly applied to all such cases. Most important of all, courts should balance the interest of the patentee and the alleged patent infringer in making the decision of whether to issue a preliminary injunction in the patent infringement cases, in order to accomplish true fairness and fully utilize the function of a preliminary injunction.

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CHOICE OF LAW—AN UNRESOLVED QUESTION IN THE FIRST ADULT VIDEO COPYRIGHT CASE OF THE TAIWAN INTELLECTUAL PROPERTY COURT

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ABSTRACT

On February 20, 2014, the Taiwan Intellectual Property Court ("TIPC") issued its first adult video copyright case, Taiwan Intellectual Property Court Criminal Judgment 101 Xing-Zhi-Shang-Yi-Zi No. 74 (2012). It held that an adult video work is copyright-eligible under the Taiwan Copyright Act and found the Japanese adult video works at dispute meet the orginality requirement. Unfortunately, the TIPC court failed to address that issue in its first adult video copyright infringement case. To enrich the discussion related to the AV decision, this paper explores the "choice of law" issues regarding the cross-border protection of copyright. The theory developed is to help resolve those issues ignored by the TIPC. Relying on the Berne Convention, this paper argues that the issues related to authorship, copyright-eligibility, originality, and ownership should be governed by the law of the country of origin. So, the appropriate governing law for the copyright cases concerning Japan adult videos is the Japan copyright law instead of the Taiwan copyright law.

Keywords: Berne Convention, copyright, copyright-eligibility, ownership, originality

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I. Introduction

On February 20, 2014, the Taiwan Intellectual Property Court ("TIPC") issued its first adult video copyright case, Taiwan Intellectual Property Court Criminal Judgment 101 Xing-Zhi-Shang-Yi-Zi No. 74 (2012) (智慧財產法院刑事判決 101 年度刑智上易字第 74 號, hereinafter, "AV decision"). The infringed works were Japan adult videos. It held that an adult video work is copyright-eligible under the Taiwan Copyright Act. The decision is contrary to a prior decision of the Taiwan Supreme Court (最高法院, zui gao fa yuan). The Taiwan Supreme Court in 88 Tai-Shang-Zi No. 250 (最高法院 88 年度台上字第 250 號) held that an adult video work is not copyright-eligible because of a moral reason. ¹

To establish copyright-eligibility, the TIPC provided three grounds. First, pornographic works are a work defined in the Taiwan Copyright Act. Second, a work of softcore pornography should be protected under the Taiwan Copyright Act if it meets the originality requirement. Third, a Japanese work of pornography should be protected under the Taiwan Copyright Act.

To support that an adult video is a copyright-eligible work in Taiwan, the AV decision discussed a variety of sources of laws from the Taiwan Constitution to foreign copyright laws. Particularly, the TIPC recognized that the Japan copyright law protects adult video works. Regaring the originality issue, the TIPC replied on the case law deveploped by the Taiwan Supreme Court to determine that the adult video works at dispute meet the originality requirement. But, the TIPC failed to identify the governing law on the issues of originality and copyright-eligibility. Therefore, this article is intended to add an aspect of choice-of-law issues to the discussions surrounding the AV decision.

This paper argues that the choice-of-law for the issues of copyright-eligibility and originality is the Japan copyright law. To explore the legal theories behind that argument, Part II starts with the analysis of the Berne Convention for the Protection of Literary and Artistic Works ("Berne Convention"), which is the oldest international treaty regarding copyright protection. ² The focused topics include country of origin, authorship, ownership, and implied choice-of-law rules. This paper particularly elaborates a definition of "author" in the context of the Berne Convention.³

¹ See Ping-Hsun Chen, Discussing the Rights Vested in Pornography Compact Disks under the Taiwan Copyright Act [lun se-qing guang-die zai wo-guo zhu-zuo-quan-fa shang zhi quan-li], 6(5) ZHONG LU HUI XUN ZA ZHI 40, 40-48 (2004).

² See WORLD INTELLECTUAL PROPERTY OFFICE, WIPO INTELLECTUAL PROPERTY HANDBOOK: POLICY, LAW AND USE 262, available at http://www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ch5.pdf#berne.

³ See Paul Edward Geller, Conflicts Of Laws in Copyright Cases: Infringement and

Part II concludes that the choice of law for the issues of authorship, copyright-eligibility, and ownership should be the law of the country of origin. Part III discusses the choice-of-law issues under the TIPC's jurisprudence regarding copyright cases. This paper specifically analyzes relevant provisions of "Act Governing the Choice of Law in Civil Matters Involving Foreign Elements" (涉外民事法律適用法, she-wai min-shi fa-lu shi-yong fa, hereinafter, "Choice-of-Law Act"), 4 and concludes that the Japan copyright law is the right choice of law for the issues of copyright-eligibility and originality because it is the law of the country of origin.

II. Protection of a Foreigner's Copyright under the Berne Convention

A. Berne Convention and National Treatment

The Berne Convention is the first international treaty addressing copyright protection of foreigners' works and provides a principle of "national treatment." Article 5(1) of the Berne Convention states, "Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention." The principle mandates each member state to treat foreign copyright owners equally to or more favorably than its nationals.

Taiwan is not considered as a sovereign state, so it cannot become a member state of the Berne Convention. But, in 2002 Taiwan joined the

Ownership Issues, 51 J. COPYRIGHT SOC'Y U.S.A. 315, 360 (2004) ("Unfortunately, neither the Berne Convention nor any other copyright treaty, including the TRIPs Agreement, expressly defines the term 'author."").

⁴ The text of the Choice-of-Law Act can be found at http://law.moj.gov.tw/LawClass/LawAll.aspx?PCode=B0000007 (Mandarin version) and http://law.moj.gov.tw/Eng/LawClass/LawAll.aspx?PCode=B0000007 (English version).

⁵ See Susan Sell, Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement, 38 Loy. L.A. L. Rev. 267, 293 (2004) (describing that a member of the Berne Convention was required to "extend their legislative protection to foreigners of member states"); see also Michael Brandon Lopez, Creating the National Wealth: Authorship, Copyright, and Literary Contracts, 88 N.D. L. Rev. 161, 180 (2012) ("The underlying purpose of the Berne Convention is to 'demand that each member state accord to nationals of other members the same level of copyright protection as it accords its own nationals."").

⁶ See Berne Convention art. 5(1) (emphasis added).

⁷ See Jason Iuliano, Is Legal File Sharing Legal? An Analysis of the Berne Three-Step Test, 16 VA. J.L. & TECH. 464, 489 ("Since the Berne Convention is a safeguard against the maltreatment of foreign works alone, member nations are free to treat their domestic works less favorably.").

World Trade Organization ("WTO"). ⁸ As a member state of the WTO, Taiwan is also a member of the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS Agreement"). ⁹ The TRIPS Agreement requires its member state to follow the requirements vested in Articles 1 through 21 of the Berne Convention. ¹⁰ Thus, Taiwan's obligation to protect a foreigner's copyright is now rooted from the Berne Convention.

B. Country of Origin

The Berne Convention has specific rules for identifying the nationality of a copyrighted work. Article 5 of the Berne Convention defines "the country of origin" for published works and unpublished works. Besides, Article 5 provides a non-publication-based rule specially for cinematographic works and architectural works.

For published works, the "country of origin" is decided by where the work is published. There are four rules. First, if a work is first published in only one member state, the country of origin of the work is that member state. 11

The second and third rules relate to works published "simultaneously" in different countries, where Article 3(4) of Berne Convention states, "A work shall be considered as having been published simultaneously in several countries if it has been published in two or more countries within thirty days of its first publication." The "country of origin" of those works depends on the place and timing of those "simultaneous" publications. If a work has been published in different countries of different terms of protection "within thirty days of its first publication," the country of origin is the country of the shortest term of protection. ¹³ If a work is published first in a non-member

⁸ See Raj Bhala, Poverty, Islamist Extremism, and the Debacle of Doha Round Counter-Terrorism: Part One of a Trilogy-Agricultural Tariffs and Subsidies, 9 U. St. Thomas L.J. 5, 29 (2011).

⁹ See V.K. Unni, *Indian Patent Law and TRIPS: Redrawing the Flexibility Framework in the Context of Public Policy and Health*, 25 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 323, 328-29 (2012) ("One of the most important agreements within the WTO is the Trade-Related Aspects of Intellectual Property ("TRIPS") Agreement, which mandates that all WTO members adopt and enforce certain minimum standards of IPR protection."), *available at* http://www.mcgeorge.edu/Documents/Conferences/GlobeJune2012 IndianPatentLaw.pdf.

¹⁰ See TRIPS Agreement art. 9.1 ("Members shall comply with Articles 1 through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6bis of that Convention or of the rights derived therefrom.").

¹¹ See Berne Convention art. 5(4)(a) ("The country of origin shall be considered to be ... in the case of works first published in a country of the Union, that country.").

¹² Berne Convention art. 3(4).

¹³ See Berne Convention art. 5(4)(a) ("The country of origin shall be considered to be ...

state and then "simultaneously" in a member state, the country of origin is that member state. 14

The fourth rule is that if a work is first published in a non-member state without then having been published in any member state within thirty days of its first publication, the country of origin is the member state where the author is a national. ¹⁵

For unpublished works, the country of origin is the member state where the author is a national. ¹⁶ Thus, when a work is unpublished, the "country of origin" of that work is merged with the nationality of the author. The merger rule is also applicable to a work first published in a non-member state without being published in other member states within thirty days of its first publication. Otherwise, the nationality of a work depends on where that work is first published.

Last, as for cinematographic works and architectural works, Article 5(4)(c) provides exceptions for "unpublished works" and "works first published in non-member state without being published in other member states within thirty days of its first publication." For "cinematographic works the maker of which has his headquarters or his habitual residence in a [member state]," the country of origin is that member state. ¹⁷ For architectural works "erected in a country of the Union or other artistic works incorporated in a building or other structure located in a [member state]," the country of origin is that member state. ¹⁸

C. Protectable Work

The definition of the "country of origin" of a work is very important because the consideration of the "country of origin" of a work is part of the determination of whether that work is protectable under the Berne Convention when the Berne Convention becomes binding. As stated in

in the case of works published simultaneously in several countries of the Union which grant different terms of protection, the country whose legislation grants the shortest term of protection.").

¹⁴ See Berne Convention art. 5(4)(b) ("The country of origin shall be considered to be ... in the case of works published simultaneously in a country outside the Union and in a country of the Union, the latter country.").

¹⁵ See Berne Convention art. 5(4)(c) ("The country of origin shall be considered to be ... in the case ... of works first published in a country outside the Union, without simultaneous publication in a country of the Union, the country of the Union of which the author is a national.").

¹⁶ See Berne Convention art. 5(4)(c) ("The country of origin shall be considered to be ... in the case of unpublished works ..., without simultaneous publication in a country of the Union, the country of the Union of which the author is a national.").

¹⁷ See Berne Convention art. 5(4)(c)(i).

¹⁸ See Berne Convention art. 5(4)(c)(ii).

Article 18(1), the Berne "Convention shall apply to all works which, at the moment of its coming into force, have not yet fallen into the public domain in the *country of origin* through the expiry of the term of protection." Assume that a work of Country A is in the public domain because of the expiry of the term of protection, while the same work is during the term of protection in Country B. If the country of origin of such work is determined to be Country A, then Country B does not need to protect such work.

D. Authorship

Identifying authors is very important for calculating the term of protection. Particularly in a case of works of joint authorship, without identifying all authors, it is impossible to measure the term of protection from "the death of the last surviving author."

Authors also control the "country of origin" of their works. Article 3(3) of the Berne Convention defines "published works" as "works published with the *consent* of their authors." For published works, an author has to consent to publish her work in a member state, so her work can acquire the country of origin as that member state. If she consents to publish her work in a non-member state, the country of origin is her nationality. For works published in different member states, an author can control the timing of "simultaneously" publications other than the first one, so her work may be tied to the country of the first publication.

But, the Berne Convention does not define "author" in three aspects.²² First, whether an author has to be a natural person is not clear.²³ Article 7(1) of the Berne Convention provides that the term of protection is "the life of

¹⁹ Berne Convention art. 18(1) (emphasis added).

²⁰ See Berne Convention art. 7bis ("The provisions of the preceding Article shall also apply in the case of a work of joint authorship, provided that the terms measured from the death of the author shall be calculated from the death of the last surviving author."); see also Roberto Garza Barbosa, Revisiting International Copyright Law, 8 BARRY L. REV. 43, 49-50 (2007).

²¹ See Berne Convention art. 3(3) (emphasis added) ("The expression 'published works' means works published with the consent of their authors, whatever may be the means of manufacture of the copies, provided that the availability of such copies has been such as to satisfy the reasonable requirements of the public, having regard to the nature of the work. The performance of a dramatic, dramatico-musical, cinematographic or musical work, the public recitation of a literary work, the communication by wire or the broadcasting of literary or artistic works, the exhibition of a work of art and the construction of a work of architecture shall not constitute publication.").

²² See Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 DEPAUL L. REV. 1063, 1069 (2003).

²³ See id.

the author and fifty years after his death."²⁴ Only a natural person can die, so Article 7(1) indicates that an author has to be a natural person to be eligible for the protection under the Berne Convention.²⁵

Second, how much a person has to contribute herself to a work so as to become an author of that work is not clear. In other words, no definition of the level of "contribution" is made in the Berne Convention. However, while the Berne Convention speaks nothing about the definition of an author's "contribution," it does imply that an author has to contribute something to a work in Article 14bis. Article 14bis defines a rule of "choice of law" for ownership of copyright in a cinematographic work (film). Specifically, Article 14bis(2)(b) recognizes a film maker's right to use the film in a member state where "authors who have brought contributions to the making of the [film]" are considered as owners of the film. By using "contributions" in Article 14bis(2)(b), the Berne Convention indicates that an author must have some "contribution" to her work in order to assert authorship.

Third, the question following the requirement of "contribution" is "originality." The Berne Convention does not define the level of originality which renders an author's work copyright-eligible. Some commentators have agreed that the Berne Convention left the issue of "originality" to each member state to decide. ²⁸ Thus, the country of origin of a work controls

²⁴ See Berne Convention art. 7(1).

²⁵ See Arthur R. Miller, Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since Contu?, 106 HARV. L. REV. 977, 1052 (1993) ("The draft's authors took the view, however, that to qualify for Berne Convention protection, these works must trace their origin to a human author.").

²⁶ See F. Jay Dougherty, *Not a Spike Lee Joint? Issues in the Authorship of Motion Pictures under U.S. Copyright Law*, 49 UCLA L. REV. 225, 315 (2001); see also William Patry, Choice of Law and International Copyright, 48 AM. J. COMP. L. 383, 428-29 (2000) (describing the rules of authorship and ownership of a film in different countires).

²⁷ See Berne Convention art. 14bis(2)(b) ("However, in the countries of the Union which, by legislation, include among the owners of copyright in a cinematographic work authors who have brought contributions to the making of the work, such authors, if they have undertaken to bring such contributions, may not, in the absence of any contrary or special stipulation, object to the reproduction, distribution, public performance, communication to the public by wire, broadcasting or any other communication to the public, or to the subtitling or dubbing of texts, of the work.").

²⁸ See Laurence R. Helfer, Adjudicating Copyright Claims under the TRIPs Agreement: The Case for a European Human Rights Analogy, 39 HARV. INT'L L.J. 357, 369 (1998) ("Commentators agree, however, that the Berne Convention does not specify the quantum of individual creativity or originality necessary for any literary and artistic work to be eligible for copyright protection, leaving the issue to member states' discretion."), available at http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2648&context=faculty_scholarship; see also Christine Haight Farley, Protecting Folklore of Indigenous Peoples: Is

whether that work meets the originality requirement.

At most, the Berne Convention provides rules for identifying the author of a work. Article 15(1) mandates each member state to allow an author to file a law suit as long as her name appears on her work in a usual manner. Even in a case where an author uses her pseudonym, as long as her pseudonym "leaves no doubt as to [her] identity," she should be allowed to suit infringers. While Article 15(1) provides a simple formality for the author of an infringed work to bring a suit, it does not help find the real author of such infringed work.

E. Ownership and "Choice of Law"

While the Berne Convention does not define "authorship," it does express that the author of a work enjoys the rights granted by copyright laws of member states and by the Berne Convention. So, the author of a work may acquire initial ownership of copyright of that work, either published or unpublished. In addition, ownership of copyright may be vested in entities other than authors. Article 2(6) of the Berne Convention provides that "[t]his protection shall operate for the benefit of the author and his successors in title." So, the rights given to authors can be transferred to their successors in title.

To resolve the issue of ownership, it is necessary to find a real author first. If the author of a work and the "country of origin" of that work have the name nationality, the governing law may be simply only one law, either "the

Intellectual Property the Answer?, 30 CONN. L. REV. 1, 19 n.71 (1997) ("The Berne Convention does not define the requisite level of originality."); Jane C. Ginsburg, Surveying the Borders of Copyright, 41 J. COPYRIGHT SOC'Y U.S.A. 322, 327 (1994) ("[T]he Berne Convention does not define the requisite level of originality.").

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²⁹ See Berne Convention art. 15(1) ("In order that the author of a literary or artistic work protected by this Convention shall, in the absence of proof to the contrary, be regarded as such, and consequently be entitled to institute infringement proceedings in the countries of the Union, it shall be sufficient for his name to appear on the work in the usual manner."); see also Paul Edward Geller, Conflicts of Laws in Copyright Cases: Infringement and Ownership Issues, 51 J. Copyright Soc'y U.S.A. 315, 358-59 (2004) ("The Berne Convention provides that, when a person's name appears as the author's on a 'work in the usual manner,' that person is presumed to be that author with standing to sue.").

³⁰ See Berne Convention art. 15(1) ("This paragraph shall be applicable even if this name is a pseudonym, where the pseudonym adopted by the author leaves no doubt as to his identity.").

³¹ See Berne Convention art. 5(1) ("Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention.").

³² Berne Convention art. 2(6).

law of the country of origin" or "the law of the country where the copyright law suit is filed." But, if the author and the "country of origin" have different nationalities, the governing law is not clear because the Berne Convention does not mention any "choice of law" rule for authorship.

The Berne Convention does not express a general rule of "choice of law" for copyright ownership, neither. ³³ However, Article 14*bis*(2)(a) of the Berne Convention provides that "[o]wnership of copyright in a cinematographic work shall be a matter for legislation in the country where protection is claimed." ³⁴ This provision indicates that the Berne Convention has an implied "choice of law" rule for copyright ownership issues. That is, the choice of law regarding copyright ownership is the law of the country of origin.

In addition to Article 14*bis*(2)(a), the Berne Convention has several provisions mentioning "choice of law" rules. Several terms are used in those provisions: "a matter for legislation in the countries of the Union," ³⁵ "governed exclusively by the laws of the country where protection is claimed," "authorized by the legislation of the country where protection is claimed," "a governed by the legislation of the country where protection is claimed," "a matter for legislation in the country where protection is claimed," "a matter for the legislation of the country where the maker of the cinematographic work has his headquarters or habitual residence," "a matter for the legislation of the Cuntry of the Union where protection is claimed," "only if legislation in the country to

³³ See Jane C. Ginsburg, Global Use/Territorial Rights: Private International Law Questions of the Global Information Infrastructure, 42 J. COPYRIGHT SOC'Y U.S.A. 318, 331 (1995) ("Apart from the article specifically addressing the law applicable to determine ownership of copyright in cinematographic works, the Berne Convention proffers no general choice of law rule for copyright ownership.").

³⁴ Berne Convention art. 14bis(2)(a); see also Dougherty, supra note 26, at 315 ("These variations in treatment of films led to difficulty in exploitation, and studies were conducted to amend the Berne Convention to address and harmonize the issue of film ownership. The amendment was passed as part of the 1967 Stockholm Revision of the Convention, adding a new Article 14 bis, which attempted to deal with those difficulties. That article states that ownership of copyright in films is to be determined under the law of the country where protection is sought.").

³⁵ See Berne Convention arts. 2(2), 2(4), 2(7), 2bis(1), 2bis(2), 7(4), 9(2), 10(2), 10bis(1), 10bis(2), 11bis(2), 11bis(3).

³⁶ See Berne Convention art. 5(2).

³⁷ See Berne Convention art. 5(3).

³⁸ See Berne Convention art. 6bis(2).

³⁹ See Berne Convention arts. 6bis(3), 7(8).

⁴⁰ See Berne Convention art. 14bis(2)(a).

⁴¹ See Berne Convention art. 14bis(2)(c).

⁴² See Berne Convention art. 14bis(2)(c).

which the author belongs so permits, and to the extent permitted by the country where this protection is claimed,"⁴³ "a matter for legislation in that country," ⁴⁴ "in any country of the Union where the work enjoys legal protection," ⁴⁵ "in accordance with the legislation of each country," ⁴⁶ and "granted by legislation in a country of the Union."

To specify the implied "choice of law" rule for copyright ownership, Article 5 of the Berne Convention can provide a start. First, Article 5(1) provides, "Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention." ⁴⁸ It implies that before having a right to enjoy the protection outside the country of origin, the author of a work should have a right to enjoy the protection within the country of origin. Thus, it is fair to say that a work must be a copyright-eligible work in the country of origin so as to enjoy the protection in countries other than the country of origin.

Second, Articles 5(2) and 5(3) together demonstrate that there are two choices of law for adjudicating copyright disputes. On one hand, Article 5(2) provides that "apart from the provisions of this Convention, the *extent of protection*, as well as the *means of redress* afforded to the author to protect his rights, shall be governed *exclusively* by the *laws of the country where protection is claimed.*" It indicates that the economic rights, moral rights, and remedial measures are governed by the law of the country where protection is claimed. On the other hand, Article 5(3) provides, "*Protection* in the *country of origin* is governed by *domestic law*." It indicates that the protection within the country of origin is governed by the law of the country of origin. Otherwise, "domestic law" should have been replaced by "the laws of the country where protection is claimed" as used in Article 5(2).

Third, Article 5(3) and Article 3(1)(b) together confirm that the law of the "country of origin" of a work governs the creation of that work. The author of a work enjoys the protection of copyright of her work because her work is initially protectable in the country of origin. Article 5(3) provides that "when the *author* is not a national of the country of origin of the work

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⁴³ See Berne Convention art. 14ter(2).

⁴⁴ See Berne Convention art. 15(4)(a).

⁴⁵ See Berne Convention art. 16(1).

⁴⁶ See Berne Convention art. 16(3).

⁴⁷ See Berne Convention art. 19.

⁴⁸ Berne Convention art. 5(1) (emphasis added).

⁴⁹ Berne Convention art. 5(2) (emphasis added).

⁵⁰ Berne Convention art. 5(3) (emphasis added).

⁵¹ See Berne Convention art. 5(2).

for which he is protected under this Convention, he shall *enjoy* in that country *the same rights as national authors*." ⁵² Because Article 5(3) emphasizes "protection within the country of origin," the same protection extends to authors who are not nationals of a member state where their works are published. Consequently, the country of origin of their works is that member state. This view is consist with Article 3(1)(b) which provides, "The protection of this Convention *shall* apply to: ... (b) authors who are *not nationals* of one of the countries of the Union, for *their works first published* in one of those countries, or *simultaneously* in a country outside the Union and in a country of the Union." ⁵³ In addition, Article 3(2) provides that the protection of the Berne Convention shall apply to "[a]uthors who are *not nationals* of one of the countries of the Union but who have their *habitual residence* in one of them." ⁵⁴

In conclusion, authors acquire copyright protection because of their works. There are three categories of persons who can become authors within the country of origin of their works: nationals of the country of origin, nationals of a country other than the country of origin, and residents of a member state with the nationality of a non-member state. The country of origin of a work creates authorship and makes that work become protectable within the country of origin. This indicates that the copyright protection of a work is defined by the country of origin of that work. Therefore, the law of the country of origin of a work should govern the ownership issue of that work as well as authorship or originality.

F. Transitional Period

"Author" is very important because an author controls the publication of her work. Under Article 3(3) of the Berne Convention, if the means of publication is "manufacture of the copies," "the availability of such copies has been such as to satisfy the *reasonable requirements of the public*, having regard to the *nature of the work*." Two elements, "reasonable requirements of the public" and "nature of the work," must be considered before the determination of whether a work has been published.

The question becomes more complicated when the nationality of the author and the "country of origin" of such published work are different. Assume that the author of a work is a national of Country X and that the place where the work is first published is Country Y. Under Article 5(4), when the work is not published, the country of origin is Country X; however,

⁵⁵ See Berne Convention art. 3(3) (emphasis added).

⁵² Berne Convention art. 5(3) (emphasis added).

⁵³ Berne Convention art. 3(1)(b) (emphasis added).

⁵⁴ Berne Convention art. 3(2) (emphasis added).

after the work is published, the country of origin is Country Y. So, the "choice of law" question arises again because the Berne Convention does not clarify whether the law of Country X or the law of Country Y governs the issues related to publication. Perhaps, the law of Country Y should be the governing law regarding the issues surrounding publication. First, Country Y as the country of origin has standing to assist a published work to be protected in other countries. That published work enjoys the protection outside the country of origin because its country of origin is recognized as Country Y. Thus, it is fair to say that the laws of Country Y should govern the issues of publication so as to control the scope of works protected internationally under its name.

III. "Choice of Law" Issues of Copyright Cases in Taiwan

A. Issues

Since the TIPC was established in 2008,⁵⁶ it has never addressed choice-of-law issues in copyright cases regarding foreign works in the light of the Berne Convention. The TIPC often refers to the Choice-of-Law Act to conclude that the Taiwan Copyright Act governs every issue.⁵⁷

Article 42.1 of the Choice-of-Law Act states, "For a right on a subject matter based on intellectual property, the laws of the place where that right shall be protected are governing." Replying on this provision, the TIPC chooses the Taiwan Copyright Act as the governing law in copyright disputes.

While Article 42.1 is very similar to Article 5(2) of the Berne Convention in terms of choice-of-law issues, it fails to distinguish the pure property rights on a work (*e.g.*, ownership, authorship, or originality) from the economic or moral rights associated with that work.

"Protection" is another undefined term in the Berne Convention. If authorship and ownership are taken into consideration, the rights granted by the Berne Convention as "protection" can be divided into two categories. A person has to become the author of her work before she can enjoy the copyright protection of her work. So, one category covers the rights to claim authorship or ownership, and the other category is the rights to enjoy the economic or moral rights.

⁵⁷ See, e.g., Taiwan Intellectual Property Court Civil Judgment 102 Min-Zhe-Su-Zi No. 4 (2013) (智慧財產法院民事判決 102 年度民著訴字第 4 號).

⁵⁶ See Huei-Ju Tsai, The Practice of Preventive Proceeding and Preservation of Evidence in Intellectual Property Civil Actions, 1 NTUT J. OF INTELL. PROP. L. & MGMT. 105, 106 (2012).

⁵⁸ Article 42.1 of the Choice-of-Law Act is officially translated as "A right in an intellectual property is governed by the law of the place where the protection of that right is sought ('lex loci protectionis') [以智慧財產為標的之權利, 依該權利應受保護地之法律]."

Each category should be subject to its own choice of law. For the rights to claim authorship or ownership, the choice of law should be the law of the country of origin. For the rights to enjoy the economic or moral rights, the choice of law should be the law of the country where protection is claimed.

B. Law of the Country of Origin

The TIPC's application of Article 42.1 of the Choice-of-Law Act is so limited that only Taiwan intellectual property laws govern all issues in intellectual property litigation. If all issues are governed by Taiwan laws only because a copyright owner files a law suit to assert copyright protection in Taiwan, Article 42.1 will be non-sense.

If the Legislative Yuan (Taiwan congress) chose to adopt the laws of Taiwan for all rights of intellectual property, it would have used "the law of Taiwan" instead of "the laws of a place where that right shall be protected." Thus, a court must have some choices of law other than Taiwan laws for adjudicating IP issues.

When an author creates a work, she can actually own that work as a property. Under the Berne Convention or domestic copyright law, she also owns copyright associated with that work. While copyright is considered as something detached from a physical work, copyright actually can be felt by human beings because it is based on expression of that work. Thus, a copyrighted work is not an invisible object but a sensible property as a real property protected by property law.

If the issues related to the creation of a work are considered as the issues of property law, then Article 38.2 of the Choice-of-Law Act can be taken into consideration in resolving the issues of choice of law in the context of authorship, originality, or ownership. Article 38.2 states, "For a property right on a subject matter based on any right, the laws of the place where that right was established are governing." ⁵⁹ If authorship and ownership are considered as a right-based property right (not like a real estate or movable object), then Article 38.2 is applicable for a court to resolve the issues of authorship, originality, or ownership. So, the court should adopt the law of the country of origin to resolve those issues.

Therefore, whether a work is copyright-eligible for protection outside the country of origin under the Berne Convention should be governed by the law of the country of origin not the laws of another country where protection is claimed. If a work deserves copyright protection within the country of origin, it should be protected by copyright law in another country.

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⁵⁹ Article 38.2 of the Choice-of-Law Act is officially translated as "A property right in a right is governed by the law of the place where the right is formed [關於以權利為標的之物權, 依權利之成立地法]."

Last, particularly for a work for hire, Article 42.2 states, "The ownership of a right of intellectual property created by an employee on duty is governed by the law applicable to the employment contract." Thus, if an author has an obligation to transfer title to copyright to her employer, the ownership issue becomes more complex because the law governing the employment contract or relationship may be another choice of law which may be different from either the law of the country of origin or the law of the country where protection is claimed.

C. Law of the Country Where Protection is Claimed

When a legitimate copyright owner of a foreign work files a complaint of copyright infringement in Taiwan, this means that she claims copyright protection outside the country of origin of her work. Because Article 5(2) of the Berne Convention states that "the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed *exclusively* by the laws of the country where protection is claimed," ⁶¹ the application of domestic copyright law to adjudicating whether any right granted to copyright owners is violated complies with the Berne Convention.

The application of domestic copyright law to copyright infringement issues is also supported by another sentence of Article 5(2) which indicates the independency of protection in different countries. As stated in Article 5(2), "such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work." Therefore, even if the country of origin grants better protection, the copyright owner cannot assert such better protection in another country. As long as a country complies with the minimal protection requested by the Berne Convention, it is that country where protection is claimed to decide how far the copyright owner can claim protection for her work in that country.

Last, while Article 14bis of the Berne Convention chooses the law of the

⁶⁰ Article 42.2 of the Choice-of-Law Act is officially translated as "Any right in an intellectual property created by an employee in the performance of his/her duties is governed by the law applicable to the contract of employment [受僱人於職務上完成之智慧財產, 其權利之歸屬, 依其僱傭契約應適用之法律]."

⁶¹ Berne Convention art. 5(2) (emphasis added).

⁶² Id.

⁶³ See Miaoran Li, Comments, The Pirate Party and the Pirate Bay: How the Pirate Bay Influences Sweden and International Copyright Relations, 21 PACE INT'L L. REV. 281, 292 (2009) ("[C]opyright protection is independent of the existence of protection in the originating country, although if a Berne Union state has a stronger protection period than the country of origin and the protection has elapsed in the country of origin, protection may be denied.").

country where protection is claimed as the governing law for the ownership issue of a cinematographic work, Article 42.2 of the Choice-of-Law Act provides the law which governs the employment contract is the choice of law for the ownership issues of an employee's work. Thus, the choice of law in that case may be different from the law of the country where protection is claimed. But, it is the law of the country where protection is claimed which chooses the law of another jurisdiction to resolve the issues. So, Article 42.2 is not contrary to the Berne Convention.

D. Rethinking the Legal Reasoning of the AV Decision

In a Japan adult video film with a Chinese subtitle, when the actors say "kimochi" (気持ち), the relevant subtitle shows "song" (爽). While it is true that Taiwanese people who cannot speak Japanese learns the idea of the scene through relevant Chinese subtitles, those subtitles are only the translation of the original transcript.

The copyright-eligibility or originality of a work is judged by the original content not its translated counterpart. So, the ultimate question is whether "kimochi" or "song" is the center of the copyright-eligibility or originality analysis. Alternatively, whether the law of Japan or the law of Taiwan governs the copyright-eligibility or originality of a Japan adult video is a question which must be considered before looking into the issues of originality.

In the AV decision, the TIPC held that an adult video is copyright-eligible and further found that the adult video works at dispute meet the originality requirement. In either conclusion, the TIPC failed to explain any legal reasoning for the "choice of law" issue and went on to apply the Taiwan copyright law. This application of the "choice of law" is inappropriate because the right choice of law should have been the law of the country of origin of those adult video works. That is the Japan copyright law.

According to the Berne Convention, the issues of copyright-eligibility and originality should be governed by the law of the country of origin. In other words, the law of the country of origin can be a more appropriate choice of law for those issues. The analysis of Articles 38.2 and 42.1 of the Choice-of-Law Act supports the same "choice of law" rule. Thus, it is suggested that for future cases regarding Japanese adult video works, the TIPC should apply the Japan copyright law, including case law, to the issues of copyright-eligibility and originality.

IV. Conclusion

While the AV decision recognizes that the adult video works at dispute are copyright-eligible and of originality, this conclusion is not based on a correct choice of law. To fix that error, the Berne Convention as an international copyright treaty for protecting authors provides a basis for analysis. While the Berne Convention does not express any general rule of "choice of law," it does provide that the ownership of copyright in a film is governed by the law of the country where protection is claimed. This indicates that the issues of copyright ownership are presumed to be governed by the law of the country of origin. Because of that, under the Berne Convention, an appropriate choice of law for the issues of originality and copyright-eligibility is the law of the country of origin. Thus, the correct choice of law for a Japan adult video film is the Japan copyright law instead of the Taiwan copyright law.

Cited as:

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APA Style: Chen, P.-H. (2014). Choice of law—An unresolved question in the first adult video copyright case of the Taiwan Intellectual Property Court. *NTUT Journal of Intellectual Property Law & Management*, 3(1), 56-71.

A CASE STUDY FOR THE FUBON GROUP-THE GROUP'S TOPOLOGY AND PATENT ACTIVITY IN THE DIGITAL CONVERGENCE ERA

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ABSTRACT

Relying on empirical inquiries, this study investigated the topology and patent activities of the Fubon Group to explore the role of patents in a telecommunications group in the digital convergence era. Through acquisitions, the Fubon Group has expanded its business from mobile into cable networks, a dominion that includes the terminal, transmission, platform, and content segments in the converged media environment. In the Fubon Group, only Taiwan Mobile possesses patents which are mainly related to application systems of communication network, and there is a noticeable number of e-commerce patents. The patent activities of the Fubon Group are in the emerging stage. Patents seem to play only a minimal role in the development and implementation of digital convergence strategies. The establishment of a management system of patents is recommended since the telecommunications group is exposed to a higher risk of infringement from different fields because digital convergence has blurred industrial boundaries.

Keywords: Patent, Fubon, Taiwan Mobile, digital convergence, telecommunications industry

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I. Introduction

Digital convergence, in its simplest form, means the union of the functions of the computer, telephone and television, thus representing a massive reorganization of businesses with a combined value of a trillion dollars. ¹ Unification on such a scale alters the positioning and core innovation for corporations in the media and communications industries. ² There is a common notion among scholars and researchers that technology is the driving force for digital convergence; technology-driven convergence is leading to an economic or market convergence and regulatory convergence, such as inter-industry mergers and the relaxation of cross-ownership of media laws. As the convergence process evolves, economic and regulatory convergence reinforces technology convergence. ³

Since patents are a critical factor in the technological and industrial development process as well as corporate competitiveness, ⁴ this study employs patent analysis to investigate how the Fubon Group has committed itself to innovation and shaping its topology in the digital convergence era. The Fubon Group, originating from the financial industry, expends its business to telecom and media markets through the merger or acquisition.⁵

¹ See David B. Yoffie, CHESS and Competing in the Aging of Digital Convergence, in COMPETING IN THE AGE OF DIGITAL CONVERGENCE 1, 3-4 (David B. Yoffie ed. 1997).

² See Po-Ching Lee, Empirical Study on the Digital Convergence Strategy and Patent Activity of Taiwanese Media Groups, 1 NTUT J. of INTELL. PROP. L. & MGMT. 121 (2012).

³ See, e.g., Ithiel de Sola Pool, Technologies of Freedom 23-54 (Belknap Press 1983); Bruce Garrison & Michel Dupagne, A Case Study of Media Convergence at Media General's Tampa New Center, in Expanding Convergence: Media Use in a Changing Information Environment Conference, Nov. 6-8, 2003.

⁴ See, e.g., Zvi Griliches, Patent Statistics as Economic Indicators: A Survey, 8 JOURNAL OF ECONOMIC LIRERURURE 1661, 1661-707 (1990), available at http://www.nber.org/chapters/c8351; Zhen Deng, Baruch Lev & Francis Narin, Science & Technology as Predictors of Stock Performance, 55(3) FINANCIAL ANALYSTS JOURNAL 20, 20-32 (1999); Holer Ernst, Patent Information for Strategic Technology Management, 25 WORLD PATENT INFORMATION 233, 233-242 (2003); Po-Ching Lee & Roger Kang, Cong IC Zhi Zao Ye Zhi Zhuan Li Zhi Biao Tan Qi Ye Chuang Xin Jing Zheng Li [從 IC 製造業之專 利指標談企業創新競爭力1,208 ACCOUNTING RESEARCH MONTHLY 67,67-72 (2003) (in Chinese); Po-Ching Lee & Roger Kang, Ru He Yun Yong Zui You Xiao Lu De Zhi Hui Jin Kuang-Liao Jie Zhuan Li Jia Zhi Chuang Zao Qi Ye Li Ji [如何運用最有效率的智慧金礦-瞭解專利價值創造企業利基], 204 ACCOUNTING RESEARCH MONTHLY 85, 85-92 (2002) (in Chinese); Chun-Chieh Wang, Dar-Zen Chen & Mu-Hsuan Huang, Technological Innovative Capacity of Taiwan and South Korea from 1987-2006-A Perspective of Patents, 5(2) NCCU INTELLECTUAL PROPERTY REVIEW 31, 31-51 (2007) (in Chinese); Mu-Jun Wang [王睦鈞], Tou Shi Tai Wan Zi Tong Xun Ji Shu Guo Jia Jing Zheng Li [透視臺灣資通訊技術國家競爭 771, 32(7) TAIWAN ECONOMIC RESEARCH MONTHLY 43, 43-52 (2009) (in Chinese).

⁵ See infra Part II; see also Fubon Group Overview,

This study examines the following two questions: (1) How are patents considered during the merger or acquisition process when implementing the group's digital convergence strategy? (2) How are patents considered while developing and implementing the group's digital convergence strategy during the product and/or service development process? As explained by Yin, "a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life contest," relying on empirical inquiries, including in-depth interviews with high-level managers and patent analysis, this case study explores the development, topology and patent activities of the Fubon Group in the digital convergence era; and the process of building patent portfolios will also be discussed.

II. The Topology and Convergence Service of the Fubon GroupA. From the financial industry to a telecom and media group

Originating as Cathay Insurance in 1961, the Fubon Group later expanded into the financial industry. Following the relaxation of financial holding laws and regulations pursuant to the Financial Holding Company Act of 2001, Fubon Financial was founded in the end of 2001 to provide cross-financial and integrated services. The Fubon Group continues to broaden the range of their business operations into the public-benefit services, telecom, and media areas; their telecom and media businesses include Taiwan Mobile, Taiwan Fixed Network, TFN Media, Win TV Broadcasting, and Fubon Multimedia Technology, as shown in Figure 1.

After existing as a financial group for two years, the Fubon Group took over the management of Taiwan Mobile⁹ in 2003, a logical progression since the Fubon Group was one of the original shareholders of Taiwan Mobile when it was founded in 1997. Subsequently, Taiwan Mobile acquired

http://www.fubon.com/eng/group/overview.htm.

http://english.taiwanmobile.com/english/about/companyProfile.html.

⁶ ROBERT K. YIN, CASE STUDY RESEARCH DESIGN AND METHODS 13 (Sage Publications 1994).

⁷ In order to explore the strategy of digital convergence, a number of in-depth, problem-centered interviews were conducted with senior executives of the Fubon Group. J.C. Jeng, Chairman of KBro, M.Y. Hsieh, Deputy General Manager of Product Development and Operation Support of KBro, and other technical, legal and administrative supporting staff of Taiwan Mobile and KBro were interviewed by members of this research project. The author is grateful to the aforementioned people for sharing their valuable knowledge during the interviews. Methodology for in-depth interviews, *see* Witzel, *The Problem-centered Interview*, 1(1) FORUM: QUALITATIVE SOCIAL RESEARCH Art. 22 (2000), *available at* http://www.qualitative-research.net/index.php/fqs/article/view/1132/2522.

⁸ The patent strategy for the group was interpreted by examining the results of patent searches, as well as the responses to ad hoc questions during the interviews.

⁹ Taiwan Mobile homepage,

Taiwan Fixed Network and Taiwan Telecommunication Network in 2007. and completed its merger with MOBITAI Communications and Trans Asia Telecommunications in 2008, thus forging an enterprise group whose reach included mobile communication, fixed-line communication, and cable television, to create a "Triple Play" competitive advantage. 10 The Fubon Group stepped into the cable television market when TFN Media merged with Fuyang Media Technology. After the Fubon Group acquired TFN Media, Fubon Group entered cable television as a multiple system operator (MSO), thus expanding its business from mobile networks to fixed networks. Furthermore, in late 2010, KBro, which possessed more than 23% of the market of cable TV users, merged with Da-fu Media, a company owned by M. C. Tsai and his brother Richard M. H Tsai, who are members of the second generation of one of Cathay Insurance's founding families. Although KBro and the Fubon Group are not financially related, it is fair to say that a merger of such size allows the pan-Fubon Group to control nearly one third of the cable television market in Taiwan. In the area of TV channels, one year after Fubon Multimedia Technology was founded, it launched the "momo channel", a TV-based shopping service, in 2005, and later expanded to three channels for TV-based commerce. 11 In 2006, Win TV Broadcasting introduced the "momo kids channel", targeting the children audience.

The Fubon Group not only contains the business of mobile and fixed networks, but has also branched out into the media industry from its "momo" TV channels to MSO for cable television, as shown in Figure 1. In the value network of digital convergence, the Fubon Group broadened its dominion in the digital convergence value network from the Transmission and Terminal segments into the Platform and Content segments in the converged media environment. Relying on its advantages of telecommunication and media integration, the Fubon Group expects to stand out among the competition. Jeng said:

In the past, telecom, broadcast TV, cable and content were quite distinct industries without any overlap. From the consumer demand viewpoint, I feel that telecom, broadcasting, media and content are related businesses in an industrial chain. Therefore, we believe that owning a mobile network, fixed network, or cable TV means owning the infrastructure.

http://english.taiwanmobile.com/eng/milestone.do?method=enterPage.

¹⁰ See Milestone, Taiwan Mobile homepage,

¹¹ See Fubon Multimedia Technology homepage, http://www.momoshop.com.tw/intro/intro.jsp?cid=footer&oid=1&mdiv=1000200000-bt 0 192 01&ctype=B.

Why would we enter the cable business? We foresee future revenue in cable TV due to the growth opportunities in the undeveloped screen and application areas. If the information of each of the three screens can communicate with the others, then we have the advantage of convergence.

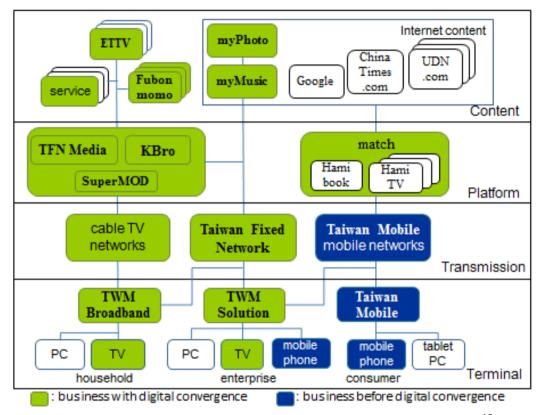


Figure 1: Positioning change and the topology of the Fubon Group. 12

This study used a four-horizontal-segments model for the value structure of the converged media environment to analyze the positioning change, value network and topology for the group. The first segment is Content, referring to the creation and production of content, which eventually be encoded in a digital format. Content is the material that consumers value for its information, entertainment, or exchange value, including movies, television programs, news, books, music, photos, and games. The second segment is Platform, where content is assembled, packaged, branded, and/or bundled into a product or service based on a specific business model, which is implemented in the platform with software and hardware. The front-end of the platform presents the product or service of digital content; the back-end of the platform may be supported by the "server." The third segment is Transmission, referring to the physical structure or carrier for the transmission of digital data, either wired or wireless, terrestrial or non-terrestrial, to form a variety of fixed and mobile networks with different standards for data transmission. Fixed networks include telephone line systems, cable TV systems, or, more generically, optical fiber or co-axial

"Four Screens and One Cloud" Convergence Services

In the area of telecommunications services, Taiwan Mobile has been reorganized and divided into three business groups for the consumer. household and enterprise markets. In 2008, Taiwan Mobile Group announced three new brands: "Taiwan Mobile," "TWM Broadband," and "TWM Solution." "Taiwan Mobile" provides mobile communication services for the consumer; "TWM Broadband" offers cable television service and broadband networks for households; and "TWM Solution" handles information communication services, including data and voice transmission, and mobile and internet services for enterprises, as shown in Figure 1.

With its strengths in mobile, fixed-line and broadband cable, the Fubon Group's cloud network connects the four screens of mobile phones, televisions, tablet PCs, and desktops. From the perspective of the individual consumer, a member of "Taiwan Mobile" can login with just one account through the four screens. For the household of "TWM Broadband," the home customer can enjoy the convergence services of cable TV, communication, video and Internet from "new TV," the digital TV services.

To reach the goal of convergence services, KBro and Taiwan Mobile launched the "Super MOD" service in 2012. 13 "Super MOD" is an integrated platform that combines video-on-demand, Internet TV, and connect TV via broadband cable to deliver digital content and services to household users. The services business model of "Super MOD" comprises two parts. The first is a broadcasting-type service composed mainly of free content available on the Internet, such as Youtube, FHM magazine, CommonWealth magazine, and weather forecasts. The second provides converged interactive services, some of them involving user-generated content, such as "myPhoto" online album, "myMusic" online music, and online games. Content such as "myMusic," previously "ezPeer," 14 can be available via mobile phones and digital TV. Jeng said:

copper cable. Mobile networks include various wireless networks. The fourth segment of the value structure of the digital convergence environment is Terminals, which refers to local devices for the input and output of signals and information, e.g. phones, TVs, PCs, tablet PCs, etc, also described as the "client." Terminals may require the downloading of application software ("app") from the server to access the product or service provided by the platform. See Lee, supra note 2.

http://www.kbro.com.tw/Product/prod connectty 01.aspx?B=1; http://www.twmbroadband.com/newty/connectty/newty-connectty-info.htm.

¹⁴ Through subsidiary Taiwan Fixed Network, in 2010, Taiwan Mobile invested in Taiwan Kuro Times, well known by it online music service "ezPeer"; the brand name "ezPeer" was changed into "myMusic" in 2012. See, e.g., Milestone, Taiwan Mobile, supra note 10; myMusic homepage, http://www.mymusic.net.tw/about/index?t=about.

We are creating an application store in the big screen..... Now that the Internet can be accessed via TV, we are establishing a platform where the applications will exist on the TV platform.

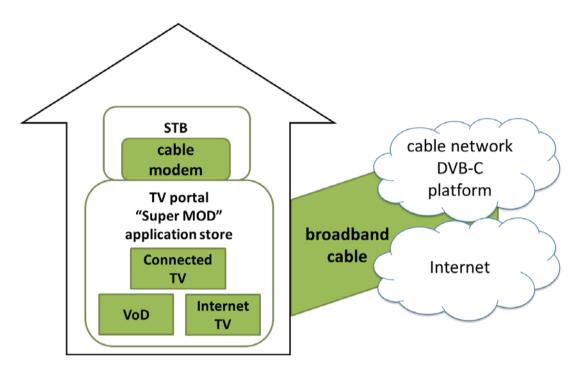


Figure 2: The converged services of "Super MOD."

C. Vision and Challenges of the Fubon Group

The companies, business sectors and the solid lines connecting these companies or business sectors, in Figure 1, form the value network and the topology created by the pan-Fubon Group, which also imply the synergic services expected by the Fubon Group in the digital convergence era. The Fubon Group foresaw that the market demand for telecommunications would shift from its original communication function to entertainment. While the markets of mobile and fixed-line communications have steadily saturated, the markets derived from cable television still have huge room for growth. Jeng stated:

Cable TV fundamentally represents entertainment; therefore Taiwan Mobile's most recent slogan is "fun!" We are not an application company, we are an entertainment company. Voice and data will gradually become less important, but video is the future trend since

video can be watched on the PC, TV or any other device.

If you switch from Chunghwa Telecom's ADSL to my cable modem, you can watch all [programs] free of charge, even if you have to pay a bit more for using cable service. That's our selling point. Although this part is free, it is bundled with other parts [to generate revenue]. If we can draw attention from somewhere else to our cable modem......If I can attract more people to my cable modem, and if I can gain 10% of the users, that is something. Therefore, our board has bought this idea, even though it needs to invest a lot of money to build the platform.

Although [the platform] currently operates with no [profit]..... we know that there will be in the future..... Even though the service is free for now, the content and application on the platform have their purposes. That part of the service can generate revenue through advertising if the content and application are rich enough, although that objective still seems far away. However, what can be seen immediately is that we are achieving the goal of stickiness.

The Fubon Group adopted a simple strategy for its "Super MOD": initially provide the service free of charge to win customers, and then introduce fees for services and content. The short to mid-term objectives for the Fubon Group are the production and application of digital content to offer diversified content services for consumers. The challenges are how to enrich the digital content, include more video content and service items in order to promote the popularity and stickiness of "Super MOD," and then introduce more pay services.

III. Patent Analysis of Taiwan Mobile

A. Patent Activities in the Emerging Stage

In the Fubon Group, Taiwan Mobile has a total of seventeen patents: sixteen invention patents and one utility model, as of May 5, 2014, searched at Taiwan Intellectual Property Office patent database (Chinese version). As shown in Figure 3, Taiwan Mobile received the first patent in 2002, and five patents were granted in 2003. Moreover, patent search results reveal that MOBITAI Communications and Trans Asia Telecommunications have one and three invention patents, respectively. Therefore, after acquiring MOBITAI Communications and Trans Asia Telecommunications, the Fubon Group should have gained four more invention patents. ¹⁵

¹⁵ There is one invention application that was filed by Fubon Financial and the Industrial Technology Research Institute (ITRI), titled "A system and method for risk

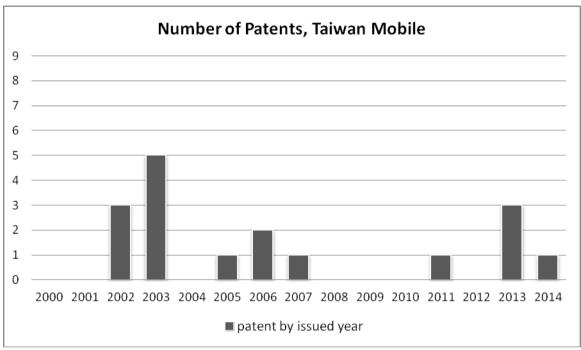


Figure 3: The number of patents of Taiwan Mobile, illustrated by the issue year, as of May 2014.

assessment," but rejected; it reflects a joint R&D project between Fubon Financial and ITRI. There are four applications published filed by Taiwan Mobile, but no patent granted yet, as of May 5, 2014, searched at China State Intellectual Property Office patent database. Other companies in the Fubon Group have not been granted any patents. Meanwhile, neither Taiwan Mobile nor any other companies in the Fubon Group have patents in the United States.

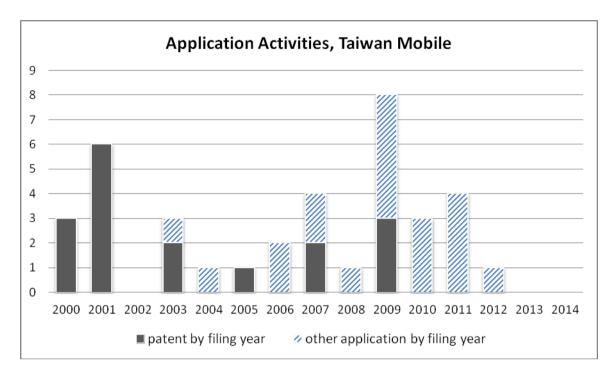


Figure 4: The number of patent applications of Taiwan Mobile, obtained by combining the numbers of issued patents and other published applications, illustrated by the filing year, as of May 2014.

Taiwan has adopted a laid-open system where all invention patent applications filed after October 26, 2001 shall be laid-open for eighteen months from the filing date (or the earliest priority date, if the priority right is claimed). Therefore, it is possible to examine the laid-open application database to search for applications which were filed eighteen months before the search date. According to the analysis for search results from the laid-open application database and patents granted, Taiwan Mobile has approximately thirty-seven patent applications since the year 2000.

In order to depict the overall filing activities, the issued patents, which were obtained in the years between 2002 and 2014 (Figure 3), were analyzed; the earliest filing date of the issued patent was in the year 2000 (Figure 4). Second, the filing dates of published applications were analyzed. Tracing the filing dates of both patents and published applications can reveal a proximate profile of filing activities. As demonstrated in Figure 4, the profile of filing activities is an up-and-down trend. The patent filing activities of Taiwan Mobile began in the year 2000 and reached its first peak in 2001; and it declined in subsequent years until it attained a further peak in 2009. Because of the 18 months delay for publishing applications, it is not clear how many

applications were filed in the past eighteen months. Nevertheless, there are only seven applications in the period between 2002 and 2006, but twenty applications in the period between 2007 and 2011. The number of applications in the period between 2007 and 2011 is nearly three times of the number in period between 2002 and 2006.

B. Patent Activities Focus on Applied Technology, e-Commerce, and Telegraphic Communication

The International Patent Classification (IPC) of each patents ¹⁶ were analysed in order to investigate the trend as well as specific focus of Taiwan Mobile's innovation. As shown in Figure 5, the patents of Taiwan Mobile are mainly distributed among H04M (telephonic communication), G06Q (data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes; systems or methods specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes, not otherwise provided for), H04L (transmission of digital information), and G06F (electric digital data processing), of which there are six, five, four, and four patents related, respectively. Those patents primarily deal with applied technologies of wireless communication networks, e.g. applied for Internet advertising, online trading, online deposit system and web page bookmark management. Since Taiwan Mobile is a telecom company, it is not surprising that most patents relate to H04M.

On the other hand, the importance of G06Q, so-called e-commerce or business method patent to laypersons, reveals that Taiwan Mobile also development technologies and applications for doing business. Among these G06Q-related patents, No. I423646 "Purchasing and billing method and system for mobile marketing platform," No. I410881 "Digital multimedia magazine release system and method," No. I407380 "System and method with the advertisement context of digital commodity on homepage," and No. 502190 "Commodity ordering method and its data processing system for wireless mobile communication network" are classified under IPC G06Q030, subclass of IPC specifically referring to commerce, e.g. marketing, shopping, and e-commerce.

The distribution of IPC of Taiwan Mobile's other applications (including rejected applications and applications under examination) slightly differs from that of the issued patents. As shown in Figure 5, the top IPC for other

Patents are systematically classified according to the areas of technology to which they pertain. The most common system is the International Patent Classification (IPC). *See* World Intellectual Property Organization [WIPO], International Patent Classification (IPC), http://www.wipo.int/classifications/ipc/en/ (last visited Dec. 10, 2012).

applications is H04L, an IPC relates to transmission of digital information, e.g. telegraphic communication. This difference represents another focus for the R&D of Taiwan Mobile is system or application for telegraphic communication, besides H04M. However, among six published applications related to H04L, four cases have been rejected; only two remains under examination, *i.e.* publish No. 201409390, "Mobile Internet quality management system and customer complaint management method," and publish No. 201233115 "Method and system for managing a cloud bookcase." The second important IPC is H04W for wireless communication networks. However, among six published applications, five have been rejected; only one application remains under examination, which is publish No. 201233202, related to a bodyguard service application for a mobile communication device. Given the above rejection status, the rejection rate is between 67 to 83%.

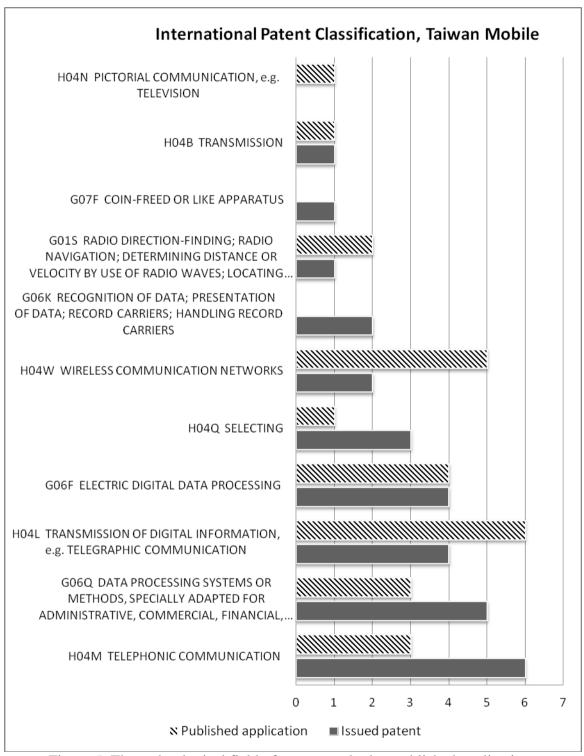


Figure 5: The technological field of patents and other published applications

of Taiwan Mobile according to International Patent Classification, as of May 2014

IV. The Role of Patent in Digital Convergence of the Fubon Group

The Fubon Group has expanded its business through acquisitions, and stepped from mobile services into cable services to become one of the dominant MSOs in Taiwan. The business operations of the Fubon Group occupy and connect all four segments in the converged media environment, including Terminal, Transmission, Platform, and Content. "TWM Broadband" of Taiwan Mobile and the newly launched "Super MOD," for example, represent the integrated services of digital convergence. However, since this development requires a tremendous amount of innovative ideas and technologies, patents seem to play no role during the acquisition process, and seem to only play a minimal role in the development and implementation of the group's digital convergence services.

Very few companies/subsidiaries in the Fubon Group are involved in patent activities, and only Taiwan Mobile has obtained patents. Taiwan Mobile received its first patent in 2002; besides the year 2003 when five patents were granted, the number of patents received each year was no more than three. There is no stable growing trend observed from the application activities. The patent analysis results for Taiwan Mobile also show that such few patents with few inventors do not fully represent the R&D talent within the company. As to the technological fields of patents, most patents are related to application systems, e.g., online advertising, purchasing and billing, and telegraphic communication via wireless communications network. Such focuses can be explained, because Taiwanese telecommunications service operators completely adopt the standards, such as GSM (Global System for Mobile Communications) and WCDMA (Wideband Code Division Multiple Access), developed by foreign companies. The R&D of the Fubon Group, hence, mainly focuses on developing applications. There is no clear indication of patent planning in connection with planning new services. According to the quantity of patents, the number of inventors participated, and 67 to 83% patent rejection rate, the patent activities of Taiwan Mobile are still in the emerging stage. For Taiwan Mobile or the Fubon Group as a whole, their patent activities do not fully reflect their achievements in R&D or innovation potential.¹⁷

¹⁷ Comparing to Chunghwa Telecom, its filing strategy is directionally aligned with the business development in the vision of "multiple screens and a cloud" in digital convergence and the patent portfolios not only include technologies in data switching networks, secure communication, and positioning, but also in ticketing and digital TV. See Po-Ching Lee, A Case Study of Patent Development of Chunghwa Telecom in the Digital Convergence Era, 1

On the other hand, "SuperMOD" represents the latest achievement of digital convergence for the pan-Fubon Group, involving development activities in cross-market and cross-platform services. However, the development of the software and hardware required for the set-top boxes and technological integration is mostly outsourced to subcontractors for several seasons: one, the technologies of system firmware and software are outside the expertise of KBro; second, with the strength of information hardware industries in Taiwan, the development strategy of KBro focuses on selecting the right partners and components; third, the technological integration of software and hardware is not the core value, but the service models and better production of digital content. Moreover, lacking an in-depth understanding of patent rights and the kinds of inventions that can be protected by patents, the process of filing patents or advantages of possessing intellectual property rights are not considered during the outsourcing stage, even though KBro has contributed innovative ideas and methods to the construction of an integrated platform.

Patents may be utilized as offensive as well as defensive tools in business competitions. As the development of digital convergence has blurred industrial boundaries, the threats of patent infringements are no longer from the same fields. Lacking an awareness of the value of patents, it is hard to build patent rights with exceptional quality, not to mention using patent assets as offensive or defensive measures while dealing with threats of patent infringement. This study suggests that the Fubon Group may start with Taiwan Mobile to establish intellectual property management systems, in order to build patent portfolios and promote the management system throughout the entire Fubon Group gradually. Considering the important positioning of KBro in the pan-Fubon Group and its innovative efforts in digital convergence, this study also suggests KBro to establish management system for intellectual assets.

The patent portfolios can serve as a defensive protection in the short-term, while the development of patents will enable the group to carve out a niche

NTUT J. of INTELL. PROP. L. & MGMT. 217 (2012).

¹⁸ See, e.g., Steve Donohue, Verizon Lawsuit Targets Cablevision Boxes, ITV, LIGHT READING, Mar. 17, 2010,

http://www.lightreading.com/verizon-lawsuit-targets-cablevision-boxes-itv/d/d-id/675470; Todd R. Weiss, *Google Files Patent-Infringement Lawsuit vs. British Telecom: Report*, EWEEK.COM, Feb. 14, 2013,

http://www.eweek.com/mobile/google-files-patent-infringement-lawsuit-vs.-british-telecom-report/#sthash.7SIvz550.dpuf; Stuart R. Dunwoody and Benjamin J. Byer, *Patent Infringement Issues Affecting Media Companies*, MEDIALAWMONITOR, Sept. 6, 2012, http://www.medialawmonitor.com/2012/09/patent-infringement-issues-affecting-media-com-panies/.

in new markets and new services, thus enabling it to stand out among other telecom groups in the long-term. Innovative ideas and patented technologies may be implemented by other companies among the group via intra-group licensing. For example, Taiwan Mobile has already accumulated a sizeable number of e-commerce patents and applications, which can be employed in the products and services of digital convergence, such as the improvement of "SuperMOD" services, or as a defensive bargaining chip when faced with patent infringement risk. The management of digital copyrights should also be considered because the amount of digital copyright productions and licensing activities in the pan-Fubon Group will continue to grow.

V. Conclusion

In conclusion, the Fubon Group has broadened its dominion in the digital convergence value network from the Transmission and Terminal segments into the Platform and Content segments in the converged media environment. With its strengths in mobile, fixed-line and broadband cable, the Fubon Group's cloud network connects the four screens of mobile phones, televisions, tablet PCs, and desktops. Although faced with a new realm of digital convergence, patent strategy seems not to be the primary concern of the pan-Fubon Group in acquisitions or R&D.

Although Taiwan Mobile has granted seventeen patents in the last thirteen years, such quantities of patents and inventors involved, the high rejection rate of patent application, and no clear indication of patent planning in connection with new services reveal that the patent activities is in the emerging stage for Taiwan Mobile or the Fubon Group as a whole. It is recommended to establish patent management systems to reinforce the patent portfolios, especially in the fields of application system and method for converged services. The digital copyright management system is also recommended since the digital production and licensing activities in the pan-Fubon Group will continue to grow.

Bluebook Style: Po-Ching Lee, *A Case Study for the Fubon Group–The Group's Topology and Patent Activity in the Digital Convergence Era*, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 72 (2014).

APA Style: Lee, P.-C. (2014). A case study for the Fubon group—The group's topology and patent activity in the digital convergence era. *NTUT Journal of Intellectual Property Law & Management*, 3(1), 72-87.

OPPORTUNITY LOST: ECONOMIC ANALYSIS IN APPLE V. MOTOROLA

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QUICK VIEW

Two years ago Judge Posner wrote an opinion in *Apple v. Motorola*² that caught the attention of economic experts and the lawyers who work with them. He excluded expert reports on both sides of the case, notably imagining a conversation in which one of Apple's experts reported his methodology to a client, to be rewarded with a resounding "*Dummkopf! You're fired.*"³

Judge Posner made three central points, each plausibly grounded in what he saw as the requirement that economic experts employ in litigation the practices clients would demand from a business consultant. The first point was that such experts must add value; they may not simply recite contentions advanced by other experts. The second point was that economic experts may not extrapolate opinions from irrelevant comparisons. The third was that such experts must consider all economic options available to an accused infringer.

These points were sound and they implied a broader critique. Judge Posner plainly felt that customary practices in the economic analysis of patent cases are deficient and should be reformed. He rightly noted that when two opinions differ by a factor of 140, a difference present in this case and

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http://patentlyo.com/patent/2014/05/opportunity-analysis-motorola.html.

² Apple, Inc. v. Motorola, Inc., No. 1:11–cv–08540, 2012 WL 1959560 (N.D. Ill. May 22, 2012); Apple, Inc. v. Motorola, Inc. et al - Document 956, http://law.justia.com/cases/federal/district-courts/illinois/ilndce/1:2011cv08540/262961/956.

³ See Apple, Inc., 2012 WL 1959560, at *9 ("So again imagine this imaginary conversation between Napper and Motorola, which I'll pretend hired Napper to advise on how at lowest cost to duplicate the patent's functionality without infringement: Motorola: 'What will it cost us to invent around, for that will place a ceiling on the royalty we'll pay Apple?' Napper: 'Brace yourself: \$35 million greenbacks.' Motorola: 'That sounds high; where did you get the figure?' Napper: 'I asked an engineer who works for Apple.' Motorola: 'Dummkopf! You're fired.'").

unsurprising to those who litigate such cases, something fundamental is wrong. His opinion was transparently an exercise in what he saw as swamp draining.

After an initial wave of *schadenfreude* rippled through the expert ranks everyone had the same question: Will this approach stick? Last Friday came the answer: No. The Federal Circuit's opinion reversing Judge Posner sees no swamp, and that is unfortunate.⁴

Although notionally applying regional (7th) circuit law to the *Daubert* questions Judge Posner decided, the court's opinion establishes principles likely to influence future patent cases in any forum. None of these principles is compelled by *Daubert* or by the rules of evidence. Together they are likely to worsen economic analysis in patent cases.

The Federal Circuit's opinion rejects each of Judge Posner's central points. On the first point the court seemed to chide Judge Posner when it warned against a court imposing "its own preferred methodology" at the expense of plausible alternatives, an ironic comment for a field in which experts routinely slog through the *Georgia Pacific* factors—a test articulated by a district court. The court held "questions regarding which facts are most relevant or reliable to calculating a reasonable royalty are 'for the jury." Such questions are a large part of what a "method" is in this context, so we may expect looser constraints on methodology in the future.

The Federal Circuit's opinion does not explain what value an economist adds by repeating an engineer's statement about a competitor's costs. To add value, one would think, an economic consultant would analyze market data. In this regard Judge Posner's literary flourish proved costly. The Federal Circuit quoted, and seemed put off by, the *dummkopf* passage. The court held "[t]he district court's decision states a rule that neither exists nor is correct. Experts routinely rely upon other experts hired by the party they represent for expertise outside of their field." Quite true. That, in part, was why Judge Posner perceived a systemic rather than an idiosyncratic problem.

The Federal Circuit's opinion is more significant on Judge Posner's second point and third points—extrapolations from comparisons and consideration of alternatives. Judge Posner excluded one expert's opinion in part on the ground that his figures with respect to one phone feature (turning a page with a tap rather than a swipe) actually aimed at another feature

⁴ See Apple Inc. v. Motorola, Inc., 2014 WL 1646435 (Fed. Cir. Apr. 25, 2014).

⁵ See id. at *19 ("A judge must be cautious not to overstep its gatekeeping role and weigh facts, evaluate the correctness of conclusions, impose its own preferred methodology, or judge credibility, including the credibility of one expert over another.").

⁶ See Georgia–Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970).

⁷ Apple Inc., 2014 WL 1646435, at *19

⁸ *Id.* at *25.

(which interpreted an imperfectly vertical swipe as a vertical swipe), which in turn were extrapolated from the price difference between a computer mouse and a trackpad. Judge Posner held the mouse-trackpad difference "tells one nothing about what they will pay to avoid occasionally swiping unsuccessfully because their swiping finger wasn't actually vertical to the screen," the function that was itself a proxy for the relevant damages figure. The Federal Circuit disagreed, noting that both the trackpad and the swipe feature involve finger gestures to communicate commands and that one of the client's engineers vouched for comparability. Imagine that.

The Federal Circuit relegated the comparability question largely to the jury:

[I]f the Trackpad is not an accurate benchmark, Motorola is free to challenge the benchmark or argue for a more accurate benchmark. But such an argument goes to evidentiary weight, not admissibility, especially when, as here, an expert has applied reliable methods to demonstrate a relationship between the benchmark and the infringed claims. 10

The net result? If your technical expert tells your damages expert two technologies are comparable, everything else is for the jury. This aspect of the holding exemplifies what will no doubt be the most common lesson taken from the case: unless an expert is filmed throwing darts at numbers, even the most cogent criticisms will be held to go to weight rather than admissibility.

This aspect of the opinion threatens to bleed into the use of licenses rather than technology to derive a royalty. With respect to a separate issue the court held that "whether [asserted] licenses are sufficiently comparable such that Motorola's calculation is a reasonable royalty goes to the weight of the evidence, not its admissibility." Taken literally that rule could undo much of the work the Federal Circuit has been doing in cases such as LaserDynamics, Inc. v. Quanta Computer, Inc., 12 which held that "[w]hen relying on licenses to prove a reasonable royalty, alleging a loose or vague comparability between different technologies or licenses does not suffice."13 Does it now suffice because it is a jury issue?

The Federal Circuit applied a similar approach to consideration of alternatives. Judge Posner's point was that a consultant asked to minimize costs from infringement would be derelict if he or she considered only

Apple, Inc., 2012 WL 1959560, at *8.
 Apple Inc., 2014 WL 1646435, at *23.

¹² LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51 (Fed. Cir. 2012).

¹³ *Id.* at 79.

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non-infringing ways to implement a function and ignored the possibility that the function could be deleted profitably. The Federal Circuit was unimpressed:

[t]hat a party may choose to pursue one course of proving damages over another does not render its expert's damages testimony inadmissible. Nor is there a requirement that a patentee value every potential non-infringing alternative in order for its damages testimony to be admissible. ¹⁴

Taken as a general rule (and the trackpad discussion certainly invites such a reading), the language will encourage fanciful comparisons at the expense of economically more probable options. Litigants will draw such comparisons in an effort to anchor jurors on a high or low number. Opinions that differ by a factor of 140 will be even more common than they are now. Not good.

Are the methods of patent damages analysis really so elastic that a difference of 140x bespeaks no cause for concern? Must we tolerate in innovation policy practices no one would rely on to decide any important question in their own lives? The Federal Circuit's decision implies that the answer is yes. Its opinion will ensure that we will see plenty more such differences. It could have been, and should have been, otherwise.

Cited as:

Bluebook Style: David McGowan, *Opportunity Lost: Economic Analysis in Apple v. Motorola*, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 88 (2014).

APA Style: McGowan, D. (2014). Opportunity lost: Economic analysis in Apple v. Motorola. NTUT Journal of Intellectual Property Law & Management, 3(1), 88-91.

¹⁴ Apple Inc., 2014 WL 1646435, at *29.

CLAIMING CLONES

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QUICK VIEW

In re *Roslin Institute (Edinburgh)*, 2014 WL 1814014 (Fed. Cir. May 8, 2014),² relates to Dolly, probably the most famous baby sheep ever.³ As most folks know, Dolly was the first successful mammalian clone from an adult somatic cell. This means that her nucleic genetic material is a copy of the adult from which she was cloned. The basic process used to create Dolly is illustrated to the right.

In addition to claims on the cloning process (which were not at issue in this appeal), the University of Edinburgh also sought product claims. Claims 155 and 164 are representative⁴:

155. A live-born clone of a pre-existing, nonembryonic, donor mammal, wherein the mammal is selected from cattle, sheep, pigs, and goats.

164. The clone of any of claims 155-159, wherein the donor mammal is non-foetal.

The Patent Office rejected these claims on Section 101, 102, and 103 grounds and the University appealed.⁵

The Federal Circuit agreed that the claims were not patent eligible under Section 101. The court began by distinguishing *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948) (which it treated as a subject matter eligibility case) from *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980), with the latter involving a patent eligible organism because "it was 'new' with "*markedly different characteristics from any found in nature* and one

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² In re Roslin Institute (Edinburgh), 2014 WL 1814014 (Fed. Cir. May 8, 2014).

³ Except for possibly Mary's little lamb. *See* Margaret R. McLean, *Much Ado about Cloning in the Public Square*, 32 U. Tol. L. REV. 337 (2001).

⁴ See Roslin Institute, 2014 WL 1814014, at *1-*2.

⁵ See id. at *2.

having the potential for significant utility." On the other hand, "any existing organism or newly discovered plant found in the wild is not patentable." Ass'n for Molecular Pathology v. Myriad Genetics, Inc.⁸ reinforced this distinction.

Here, the claims covered organisms (such as Dolly) that do not "possess 'markedly different characteristics from any [farm animals] found in nature." The emphasis of the court's analysis was on genetic identity: "Dolly's genetic identity to her donor parent renders her unpatentable." ¹⁰ The claims thus fell into the product of nature exception to the broad scope of patent eligible subject matter.

Underlying the court's opinion was a policy thread relating to copying generally: that the copying of unpatentable articles is permitted so long as it does not infringe a patented method of copying. In Sears Roebuck & Co. v. Stiffel Co., for example, the Supreme Court wrote that "[a]n unpatentable article, like an article on which the patent has expired, is in the public domain and may be made and sold by whoever chooses to do so." ¹¹ Because the claimed clones are exact genetic copies of the of patent ineligible subject matter, they, too, are not eligible for patent protection.

What about the argument that these clones may be genetic copies of the donor organism, but they aren't exactly the same? For example, environmental factors will produce differences between the phenotypes of the donor and clones and their mitochondrial DNA will differ, since the mitochondrial DNA comes from a different source than the nucleic DNA. The court rejected these arguments because such differences were not claimed: the claims are written in terms of genetic identity, not phenotypic or mitochondrial differences.

What the court appears to be implicitly doing here is to interpret the claims in a manner that is least favorable to the applicant. There is at least a plausible argument that the claims do implicate genetic identity but phenotypic diversity by their reference to a "live-born clone of a ... mammal." To be sure, the word "clone" contemplate genetic identity. But at the same time the very idea of a live-born mammalian clone suggests that the product will not be an exact duplicate of the donor. In other words, while the claims don't contain the words "phenotypic difference," those differences are inherent in what a clone is: a clone will necessarily exhibit phenotypic

⁶ Id. at *3 (quoting *Chakrabarty*, 447 U.S. at 310 (emphasis added by court)).

⁸ Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013).

⁹ Roslin Institute, 2014 WL 1814014, at *4 (quoting Chakrabarty, 447 U.S. at 310).

¹¹ Sears Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 231 (1964).

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differences because it will develop in different environmental circumstances than its donor.

However, even were the claims to expressly include such limitations, the court reasoned that it would not change the outcome. As to phenotypic differences, they "do not confer eligibility on their claimed subject matter. Any phenotypic differences between Roslin's donor mammals and its claimed clones are the result of 'environmental factors,' Appellant's Br. 21, uninfluenced by Roslin's efforts." (I guess the fact that the whole process was set in motion by human activity doesn't count.) As to mitochondrial differences, "There is nothing in the claims, or even in the specification, that suggests that the clones are distinct in any relevant way from the donor animals of which they are copies." As a result, the claims fail the "markedly different characteristics" language of *Chakrabarty*.

Cited as:

Bluebook Style: Jason Rantanen, *Claiming Clones*, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 92 (2014).

APA Style: Rantanen, J. (2014). Claiming clones. NTUT Journal of Intellectual Property Law & Management, 3(1), 92-94.

¹² Roslin Institute, 2014 WL 1814014, at *5.

¹³ *Id.* at *6.

IN RE ROSLIN INSTITUTE: PRODUCTS OF NATURE AND SOURCE LIMITATIONS

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OUICK VIEW

The Federal Circuit's recent opinion in In re Roslin Institute² is the court's first decision on the patent-eligibility of natural products after the Supreme Court's Myriad decision, which denied patent-eligibility to isolated genomic DNA. The holding itself is probably not significant; cloned animals have little commercial significance at present. But the court's requirement that inventions be "markedly different" from their natural sources casts doubt the patent-eligibility of other biotechnological inventions, such as isolated human stem cells. This comment addresses two issues with the Federal Circuit's analysis in *Roslin*: the court's interpretation of *Chakrabarty*³ and Funk Brothers, 4 and Roslin's requirement that structural or functional differences between natural and synthetic products must be explicitly recited by the claims.

Unaltered by the hand of man: Judge Dyk's opinion in Roslin unfortunately perpetuates the view, now found in the PTO's Myriad guidelines, that Chakrabarty requires a claimed invention to be "markedly different" from a natural product for patent-eligibility under § 101. Myriad itself imposed no such requirement: the Court found BRCA cDNAs patent-eligible without determining that they were "markedly different" from natural sequences. And though Myriad reiterated the "markedly different" language from Chakrabarty, Chakrabarty's discussion of "products of nature" was entirely dictum. Only the question of whether living organisms were patent-eligible was before the Court in Chakrabarty; the "product of nature" rejection in the case had not been sustained by the Patent Office Board of Appeals.

The Chakrabarty Court noted the claimed bacteria differed "markedly"

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² In re Roslin Institute (Edinburgh), 2014 WL 1814014 (Fed. Cir. May 8, 2014).

³ Diamond v. Chakrabartv. 447 U.S. 303 (1980).

⁴ Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127 (1948).

from natural bacteria by way of contrasting the genetically altered bacteria in the case from the mixed culture of naturally occurring bacteria found unpatentable in *Funk Brothers*.⁵ The patentee in *Funk* had discovered that certain strains of *Rhizobium* bacteria could be mixed together without inhibiting their nitrogen-fixing capability. Justice Douglas regarded this compatibility as the unpatentable discovery of a natural phenomenon. The claims were unpatentable because the patentee's application of his discovery – a mixed inoculant – required no ingenuity or invention once the discovery itself was known.

As I discuss in a recent article, ⁶ despite the Court's requirement for 'inventiveness', *Funk* was very much a patent eligibility case rather than a non-obviousness case. It reflects Douglas's view – shared by Justice Stevens in *Flook*, and Justice Breyer in *Mayo* – that obvious applications of scientific discoveries or abstract ideas are not patent-eligible "inventions" within the meaning of the statute.

Whether or not we share that view, understanding Douglas's perspective makes clear that *Funk* was an "inventive application" case, not a "product of nature" case. Douglas made no reference to the "product of nature" doctrine, nor to the recent cases embodying it. Instead, Douglas emphasized the lack of change in the bacteria to establish that the mixed inoculant was obvious (once the patentee's discovery was assumed away). In particular, under the old doctrine of "aggregation," it was not invention to combine old elements where the elements were unchanged, and no new function arose from their combination. It was therefore not inventive for the patentee in *Funk* to combine old bacteria without changing their structure or function.

But just as many combinations of old elements become patentable when a new function emerges, the mixed inoculants of *Funk* would have been patentable – even if the bacteria remained unchanged – had the mixed inoculant acquired new functions not performed by its constituent bacteria. If *Funk Brothers* instead stood for the proposition that a combination is unpatentable if its constituents are "unaltered by the hand of man," then a

⁵ In *Chakrabarty*, the Commissioner of Patents never argued that the claimed bacteria were unpatentable under *Funk* – nor even raised the case. Rather, Chakrabarty, the patent applicant, argued that if living organisms were not patent-eligible, the Court would have said so in *Funk*.

⁶ Jeffrey A. Lefstin, *Inventive Application: A History*, FLA. L. REV. (forthcoming 2014), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2398696.

⁷ In particular, the *General Electric* and *Marden* cases, decided in 1928 and 1931, which denied patentability to purified forms of tungsten, uranium, and vanadium. *See* General Electric Co. v. De Forest Radio Co., 28 F.2d 641 (3d Cir. 1928); In re Marden, 48 F.2d 428 (Cust & Pat. App. 1931). The defendant had urged *General Electric* upon the *Funk* court in its brief.

very large number of inventions become patent-ineligible. An artificial structure like an arch, formed by piling stones atop each other, would be ineligible unless the stones themselves were altered by the hand of man. Even as ardent a skeptic of the patent system as Justice Douglas would not have gone that far.

Source limitations and expressly claimed distinctions: The second difficulty with *Roslin* is its demand that the "marked differences" between the natural organism and the invention must be expressly claimed. As Prof. Jason Rantanen discussed, 8 the applicant in *Roslin* argued that cloned animals differ from their natural counterparts at least in having mitochondrial DNA derived from the egg donor, rather than the animal which donated the somatic nucleus. The Federal Circuit rejected such arguments because neither the difference in mitochondrial DNA, nor any functional consequence of that difference, was recited in the claims.

However, the same argument, albeit in the context of § 102, was before the Federal Circuit in the extensive litigation over Amgen's recombinant erythropoietin (EPO) patents. Much like Roslin, Amgen had claims to a "copy" of natural product: in that case EPO produced by mammalian cells in culture. While Amgen's synthetic EPO differed in glycosylation from the natural product, several of the claims in the case recited only the non-natural source of the EPO, not the structural differences. The Federal Circuit recognized that the novelty of the synthetic EPO claims depended on whether synthetic EPO differed from natural EPO. Yet the court found novelty based on the *unclaimed* structural and functional differences between natural and synthetic EPO, which were demonstrated in part by the specification and prosecution history, and in part by testimony at trial. 10 In effect, the court held that the structural and functional differences characterizing the synthetic product were inherent in the source limitations. (The court did not inquire whether all synthetic EPO molecules falling within the scope of the claims would display similar differences in glycosylation.)

Thus under *Amgen*, a source limitation alone (such as "non-naturally occurring" or "purified from mammalian cells grown in culture") may establish novelty of a product. Assuming the "clone" limitation in *Roslin* to require derivation from nuclear transfer, then it serves as a source limitation as well. Since *Roslin* cannot overrule *Amgen*, we seem to be in a regime

⁸ See Jason Rantanen, Claiming Clones, http://patentlyo.com/patent/2014/05/claiming-clones.html (last visited May 21, 2014); see also Jason Rantanen, Claiming Clones, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 92 (2014).

⁹ See Amgen Inc. v. F. Hoffman-LaRoche Ltd, 580 F.3d 1340 (Fed. Cir. 2009).

¹⁰ See id. at 1370.

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where differences between natural and synthetic products may be unclaimed yet confer novelty under § 102, but must be explicitly claimed to establish "marked difference" under § 101. Of course, if *Roslin* is correct, that doctrinal inconsistency is less significant than the consequence that *Amgen*-type claims – and perhaps a wider category of product-by-process claims involving natural products – are now ineligible under § 101.

Cited as:

Bluebook Style: Jeffrey A. Lefstin, *In re Roslin Institute: Products of Nature and Source Limitations*, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 95 (2014).

APA Style: Lefstin, J. (2014). In re Roslin Institute: Products of nature and source limitations. *NTUT Journal of Intellectual Property Law & Management*, 3(1), 95-98.

AUTHOR'S REPLY: HUMAN STEM CELL RESEARCH IN EUROPE AND THE U.S.A.: POST *BRÜSTLE* AND SHERLEY, ETHICS ISSUES AND PATENT OUAGMIRE

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In Arif Jamil, *Human Stem Cell Research in Europe and the U.S.A.: Post Brüstle and Sherley, Ethics Issues and Patent Quagmire*, 2 NTUT J. OF INTELL. PROP. L. & MGMT. 145, 149 (2013), the author would like to correct some unintentional mistakes as follows:

II. Human Stem Cell Research and Patent in Europe and USA: Recent Legal and Policy Environment

The following two sentences are required to be omitted/deleted from the page 149. It is written as follows²:

The European Court of Human Rights referring Art. 8 of the European Convention on Human Rights, 1950 has found that the Italian Law No. 40 of 2004 has resulted to discrimination to the carrier of sexually transmitted diseases and unjustifiably deprived them from selecting healthy embryos by conducting Preimplantation Genetic Diagnosis (PGD) in order to prevent the virus to be transmitted to the offspring. The Court granted PGD for the applicant.

Instead of the above, following observation would be correct explanation of the fact and the decision of the Court:

¹ Ph.D. Research Fellow (2012-2015), Erasmus Mundus Joint International Doctoral Degree in Law, Science and Technology (LAST-JD). **ACKNOWLEDGEMENT**: I owe a great debt of thanks to Erasmus Mundus Joint International Doctoral Degree in Law, Science and Technology (LAST-JD) Consortium and my supervisors Prof. Dr. Mindaugas Kiškis, Mykolas Romeris University, Vilnius and Prof. Dra. María Casado, University of Barcelona, Bioethics and Law Observatory for their valuable instructions. I also thank Prof. Dr. Itziar Lecuona, Prof. Dr. Monica Palmirani and Prof. Dr. Sumaiya Khair for their continuous support in my doctoral study. Contact email: aaajamil@yahoo.com.

² Arif Jamil, *Human Stem Cell Research in Europe and the U.S.A.: Post Brüstle and Sherley, Ethics Issues and Patent Quagmire*, 2 NTUT J. OF INTELL. PROP. L. & MGMT. 145, 149 (2013).

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The European Court of Human Rights observed in the circumstances of *Costa and Pavan* case that the Italian Law No. 40 of 2004 does not allow Preimplantation Genetic Diagnosis (PGD) for embryo screening to the applicants, who are the carrier of cystic fibrosis, a genetic disease and there exists a "disproportionate" interference to the rights of the applicants ensured under Article 8 of the European Convention on Human Rights.

The footnote no. 9 in the page 149 shall be put in place as it is now, after the above sentence.

Reason of change: It appears that in the writing, an unintentional misinterpretation or misconstruction of the facts and decision took place in those two sentences. This change will not affect the other parts of the writing. It was unintentional mistake.

Cited as:

Bluebook Style: Arif Jamil, Author's Reply: Human Stem Cell Research in Europe and the U.S.A.: Post Brüstle and Sherley, Ethics Issues and Patent Quagmire, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 99 (2014).

APA Style: Jamil, Arif. (2014). Author's reply: Human stem cell research in Europe and the U.S.A.: Post *Brüstle* and *Sherley*, ethics issues and patent quagmire. *NTUT Journal of Intellectual Property Law & Management*, 3(1), 99-100.

EDITORIAL NOTE ON THE VOLUME 3 NUMBER 1 ISSUE OF 2014

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EDITORIAL NOTE

In this issue, we begin to divide articles into several sections. First, the "Research Article" section publishes peer-reviewed articles. Second, the "Quick View" section publishes short articles that IP scholars or practitioners write to show their ideas about current IP issues. Third, the "Author's Reply" section allows an author to rephrase his argument made in his previously published article.

Another important step is that we begin to send our journal to Thomas Reuters for the evalution of the SSCI collection. Hopefully, our journal could be indexed in SSCI within several years of evaluation.

Cited as:

Bluebook Style: Ping-Hsun Chen, *Editorial Note on the Volume 3 Number 1 Issue of 2014*, 3 NTUT J. of Intell. Prop. L. & Mgmt. 101 (2014).

APA Style: Chen, P.-H. (2014). Editorial note on the volume 3 number 1 issue of 2014. NTUT Journal of Intellectual Property Law & Management, 3(1), 101-101.

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