Intellectual Property and Innovation:
In Search of a Sustainable Intellectual Property Strategy

By: Christopher E. Cruz
Commercial Law Department, De La Salle University

I. Introduction

According the World Intellectual Property Organization (WIPO), Intellectual Property refers to "*creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce."*[1] From this definition, three intellectual property rights emerge: (1) Patents for inventions; (2) Copyright for literary and artistic works and designs; and (3) Trademark for symbols, names and images used in commerce. A fourth kind not mentioned in the definition is trade secret. These involve information that has value by keeping it private and not making them available to the public like business plans or a food recipe. Although there are other kinds of intellectual property, these four kinds of intellectual property comprise the core of the intellectual property (IP) rights system of protection. To protect the interest of inventors, authors and owners over their intellectual property, the intellectual property system was established by states who saw the need to protect intellectual property rights. These states entered into intellectual property treaties to help protect intellectual property not only domestically but internationally as well. Each member-state was obliged to comply with the minimum standards set by the treaties allowing, however, for some flexibilities for developing states. It is the WIPO, a United Nations backed institution, that administers these treaties for the proper monitoring, enforcement and implementation of intellectual property rights.

In today's knowledge-based ecosystem, intellectual property has become the new currency of the 21st century. With the advent of data science, artificial intelligence and the internet of things, new technologies have emerged to replace traditional solutions to everyday problems. Driverless cars, automated robots and intelligent gadgets are now fast replacing humans. With these technological developments, there is a greater need to safeguard the inventions and creations to foster creativity and innovation. Without intellectual property protection, inventors, authors and artists will have second thoughts before sharing their ideas for fear that they will just be exploited and copied, which would lead to less creative and innovative works. With intellectual property protection, however, there is motivation to further create and innovate since the intellectual property system will give them the exclusive right to exploit their intellectual property over a limited period.

The IP system, however, was not created to serve only the interests of the inventors, authors and artists. It exists primarily for the common good of society. In the case of *Manzano vs. Court of Appeals*, the Philippine Supreme Court declared that *"The primary purpose of the patent system is not the reward of the individual but the advancement of the arts and sciences. The function of a patent is to add to the sum of*

[1] www.wipo.int/about-ip/en/

useful knowledge and one of the purposes of the patent system is to encourage dissemination of information concerning discoveries and inventions."[2]

The intellectual property system of protection, however, has its own share of detractors and critics. With its popularity comes intense scrutiny from those who want to limit if not abolish the intellectual property system of protection. In his article *"Against Intellectual Property"*, Brian Martin argued that on the contrary, the intellectual property system has negative consequences *"such as retarding innovation and exploitation of poor countries."*[3] For Jeff Clark in his article *"Pro & Con: Intellectual Property*", he argued that the *"evidence supporting the notion that patents promote innovation is woefully lacking."*[4] Indeed, the very existence of the intellectual property system is under attack and unless a sustainable intellectual property strategy is put in place, confidence in the IP system may be eroded which may even lead to its demise.

The Intellectual property system of protection has been in existence for more than a hundred years now and its main justification is that it motivates people to create and innovate. It is argued that many of today's inventions and creative works may not have existed or made available to the public without the intellectual property system of protection in place. Through the intellectual property system, advocates of intellectual property argue that the legal monopoly established by the intellectual property system is necessary to spur innovation and creativity, especially in science and the arts. Without the legal monopoly, these inventors and creators will lose the motivation to disclose their work to the public. On the other hand, there are people who argue that knowledge is for everyone and that all inventions and creations should be shared and be part of public domain. The extreme critics of the intellectual property system even claim that the system has created a legalized mechanism of exploitation by those who own intellectual property against those who use it. They argue that since most owners of intellectual property are the developed countries, they have used the IP system to exploit the developing countries into accepting the system for their (developed countries) own self-interest.

In order for intellectual property to remain relevant in the 21st century, there is a need to re-examine whether the intellectual property system promotes innovation and creative activity. The main argument for intellectual property is that people will not be motivated to create new technologies and creative works if they will be exploited and copied without any compensation. On the other hand, the main argument against intellectual property is that it has restricted the free flow of ideas which has led to less dissemination of knowledge and consequently less innovation. It has also been argued that the intellectual property system has been used as a means to exploit the poor and marginalized sectors of society. For the intellectual property system to be sustainable, there is a need to prove that intellectual property has and will continue to spur innovation.

Faced with these two different perspectives on the nature of intellectual property, this paper would like to answer the following question: Does the intellectual property

[2] Manzano vs. Court of Appeals, p. 1.
[3] Martin, p. 5.
[4] Clark, p.2.

system really foster creativity and innovation? Can innovation exist without intellectual property protection? The aim of this paper is to study the relationship between the intellectual property system on one hand and creative and innovative activity on the other. It will look into the arguments which claim that intellectual property protection has increased innovative activity and helped protect the works of inventors, authors and artists. On the other hand, it will also discuss the arguments against intellectual property and how it can restrict innovative and creative works. This paper will discuss the arguments for and against the IP system and how, in some respects, it has both increased and restricted innovation. In the end, the paper will argue that a sustainable intellectual property strategy is needed – a shift from the "sword and shield" approach to an open and flexible approach to intellectual property - that there is a need to revisit the traditional justifications for intellectual property protection and the need for a sustainable intellectual property strategy for it to continue fostering innovative activity in the 21st century.

In order to understand the nature of intellectual property and whether it promotes or restricts innovation and creative activity, there is a need to know the basic arguments for and against the protection of intellectual property rights. This is where we will go to next.

II. The Arguments for the Protection of Intellectual Property

It is only recently that the interest in the philosophical justifications for intellectual property rights have started gaining public attention. With the development of new technologies in artificial intelligence, robotics, genetic engineering and digital systems, debates on the theories on the protection of intellectual property have gained ground. There are three traditional arguments for the protection of intellectual property: (A) the Utilitarian (Bentham and Mill) and Economic theories; (B) The Natural Rights and Labor Theory (John Locke); and the (C) Personality Theory (Hegel). A fourth justification is the (D) "Social Planning Theory" espoused by Dr. William Fisher, an intellectual property professor at Harvard University.

A. Utilitarianism and Economic Theory:

The main argument for the protection of all kinds of intellectual property, most notably inventions, is utilitarianism. It follows the general principle of "The greatest happiness for the greatest number". Otherwise called the general welfare or common good clause, our 1987 Philippine Constitution echoes this utilitarian objective about intellectual property in Section 13, Article 14:

> *"The State shall protect and secure the exclusive rights of scientists, inventors, artists, and other gifted citizens to their intellectual property and creations, particularly* ***when beneficial to the people****, for such period as may be provided by law."* (emphasis supplied).

This follows the reward-incentive justification for protecting intellectual property. William Fisher calls this *"the maximization of net social welfare."*[5] Inventors of new technologies, writers of books, or composers of songs will have no incentive to pursue their inventive and creative activities if there was no reward or incentive for doing so. If their work can simply be copied and distributed freely, then they will lose interest in continuing their work. This is true particularly in the medical field where companies invest huge sums of money for research and development with the hope that they will recoup their investment and get some profit from a blockbuster drug. To motivate them to continue, the law gives exclusive rights to them which will, in turn, be good for society as the public would benefit through these creations. The intellectual property system also requires full disclosure of the invention which will ultimately redound to the benefit of the public as it can be used after expiration of the protection. Without full disclosure, the public will not know and have access to the invention and only the inventor and a few of his friends will benefit from it. Jeremy Bentham and John Stuart Mill argued that giving exclusive rights to the inventor is justified as it would ultimately redound to the benefit of the public through its disclosure to the state and its eventual use.

Moreover, Peter Menell in his work *"Intellectual Property: General Theories*", the patent system has *"promoted economic efficiency: legal protection for invention encourages investment; disclosure requirements enhance technological knowledge and spur further research, incentives to develop and commercialize research rapidly diffuse advancements."* [6]

B. Natural Rights and Labor Theory:

One major argument for the protection of intellectual property rights is the natural rights theory. According the Chidi Oguamanam, *"The crux of natural rights thinking is that creators' or inventors' entitlement to their work is akin to an inherent natural right which the state is under an obligation to protect and enforce."*[7] It claims that the author or inventor has a natural right to the fruits of his work or labor as this is an expression of what he/she is. According to John Locke, a natural rights advocate, human beings own the work of their hands:

> *xxx the labour of his body and the 'work' of his hands, we may say, are properly his. Whatsoever, then, he removes out of the stat that Nature hath provided and left in it, he hath mixed his labor with it and joint to it something that is his own and thereby makes it his property. It being by him removed from the common state of Nature placed it in, hath by this labour something annexed to it that excludes the common right of other men. For this "labour" being the unquestionable property of the labourer, no man but he can have*

[5] Fisher, p. 1.
[6] Menell, p. 146.
[7] Oguanamam, p. 108.

a right to what that is once joined to it, at least where there is enough and good left in common for others."[8]

Unlike the utilitarian theory which focuses on the effects to the public, the natural rights and labor theory looks at the fruits of one's labor, which is also otherwise known as the sweat-of-the-brow doctrine in copyright law. According to this theory, an inventor of a gadget, a photographer or painter is entitled to the fruits of his labor and hard work and that this should be protected by the state as his own. For Fisher, *"a person who labors upon resources that are either unowned or "held in common" has a natural property right to the fruits of his or her efforts – and that the state has the duty to respect and enforce that natural right."*[9]

C. Personality Theory

The basic tenet of the personality theory is that a person must own and have control over his idea because *"the idea is a manifestation of the creator's personality or self*".[10] It argues that property created by a person is an expression of the self and, therefore, is a recognition of him as a person. This theory was inspired by Hegel, a German idealist philosopher and his concept of the will and freedom. For Hegel, *"recognizing an individual's property rights is an act of recognizing the individual as a person*."[11] As explained by Hughes in his work *"The Philosophy of Intellectual Property":*

"For Hegel, the individual's will is the core of individual existence, constantly seeking actuality and effectiveness in the world. x x x We can identify personality with the will's struggle to actualize itself"[12]

Similar to the natural rights and labor theory, the personality theory draws its justification from the ideas of the inventor or creator manifested through his work. The difference lies in the focus: while the natural rights and labor theory focuses on the fruits of one's labor, the personality theory focuses on the work as an extension of the self. For example, a sculptor expresses his self (will) through the sculpture that he creates. This theory is most commonly used in the arts and literary works as seen in poems and songs as they express the personality of the creator.

D. Social Planning Theory

According to William Fisher, the Social Planning Theory is *"rooted on the proposition that property rights in general – and intellectual property rights in*

[8] Locke, John (1698), Two Treatises on Government (3rd Ed.)
[9] Fisher, p. 2.
[10] Hughes, p.330.
[11] Hughes, p.338
[12] Hughes, p. 330.

particular – can and should be shaped so as to help foster the achievement of a just and attractive culture." [13] The less-established theory among the four theories discussed in this paper, the social planning theory looks at intellectual property as a means to promote a just and fair society.

III. The Arguments Against the Protection of Intellectual Property

The arguments against the protection of intellectual property mainly involve attacks on the arguments for it and the respective gaps and ambiguities of the theories. The following are some of the arguments against the protection of intellectual property rights:

1. The arguments for the protection of intellectual property are too philosophical and abstract and have no evidentiary basis. While logic dictates that legal monopolies create motivation for inventors to innovate under the utilitarian theory, *"evidence supporting the notion that patents promote innovation is woefully lacking*."[14] On the contrary, a patent owner who has cornered the market may rest on his laurels and dampen his motivation to further innovate. In other words, this is subjective and needs to be proven. For Lever, "it's not clear that such temporary monopolies really do encourage ideas – in some cases, they seem to impede them, as scientists are forced to seek endless permissions, and pay endless licensing fees, in order to pursue their research."[15]

The natural rights and labor theory can be rebutted by stating that not all intellectual property is the result of labor by the creator. According to Edwin C. Hettinger, the value of intellectual products was due not to the work of the creators alone but by earlier works of others.[16] For example, a book is a product of the work not only by the author but by his teachers, the school, peers, and previous works without which he could not have made his work. Another problem with the labor theory is how to define "intellectual labor" to entitle the creator intellectual property rights.

The personality theory and the social planning theory can be rebutted in the same way that they are indeterminate and difficult to measure.

2. The existence of patent trolls: Patent trolls are patent owners who "*misuse patents as a business strategy*."[17] They usually buy patents with no intention of using and developing them and file infringement suits against those who use them without permission. Patent trolls can also be non-performing entities who intentionally get patents with no intention of using them and for the purpose of holding off competition. They use the patent system to legally milk money out

[13] Fisher, p. 4.
[14] Clark, p. 2
[15] Lever, p. 2.
[16] Martin, p. 6.
[17] www.investopedia.com/terms/p/patent-troll.asp

of infringers and restrict research and development on the idea behind the patent. Unless they are controlled and the IP legal infrastructure is modified, patent trolls can wreck havoc to commercial and research activities and impede innovation and creativity.

> *"For example, from its beginning in 1875, the US Company AT&T collected patents in order to ensure its monopoly on telephones. It slowed down the introduction of radio for some 20 years. In a similar fashion, General Electric used control of patents to retard the introduction of florescent lights, which were a threat to its market of incandescent lights. Trade secrets are another way to suppress technological development."*[18]

3. Information should be shared: The IP system restricts free flow of ideas: We live in a world of ideas. These ideas must be shared as they are needed to create new ideas. The intellectual property system, by legalizing monopoly of ideas in general, tends to restrict the free flow of ideas and are, therefore, bad for research and development. The alternative is that intellectual property should not be owned and should be available for use and enjoyment of everyone.[19] With this alternative, there will be literally a free flow of ideas without fear of being sued for infringement.

4. The IP system has been used a tool by the developed countries to oppress developing countries: It is admitted that developed countries, with their wealth of resources, are the major owners of intellectual property, specifically patents and trademarks. In order to expand their market and influence, they established businesses outside their home country, particularly in developing countries. Since IP protection is not yet expansive and developed in poor countries, wealthy countries have support the IP system and instituted programs to instill the IP mindset in poor countries. For Martin, " xxx intellectual property is one more way for rich countries to extract from poor countries."[20]

The arguments presented above against the protection of intellectual property rights have exposed the weakness of these theories, individually and collectively. Despite these gaps and weaknesses in the theories, is it still plausible and proper to defend the view that intellectual property rights should be protected whether or not it promotes innovation and creativity? I answer in the affirmative. The challenge now is how to build on these theories knowing their gaps and weaknesses in order to justify the protection of intellectual property rights. What strategies should be used towards this end? This is will be the topic of the next chapter.

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[18] Martin, pp. 4-5.
[19] Martin, p. 13.
[20] Martin, p.5.

IV. Intellectual Property Strategy for Innovation and Creativity

Intellectual property is a neutral tool which can be used by the owner for good or evil ends and anything in between. Used properly, intellectual property protection can help promote innovation and creativity that, in turn, can spur human and economic development. Used improperly, it can do the opposite. This means that intellectual property can both promote and restrict innovation and creativity depending on how it is managed and used. Hence, a good intellectual property management and strategy is crucial. The following are some strategies in approaching intellectual property in order to use them to promote innovation and creativity:

1) <u>There is a need to protect intellectual property, but for a limited period:</u> There is enough philosophical basis for an inventor or creator to lay claim over the fruits of his work. Using the three theories mentioned above, it is my opinion that innovation and creativity will be fostered if intellectual property rights are protected. Imagine a world without IP rights – there will be less incentive to innovate. On the other hand, imagine a world with IP rights – there will be legal protection to innovate without fear of being copied or infringed. To prevent abuse, the law imposes a limit to the protection (20 years for patent) so that in the end the public will still benefit. Abandoning protection altogether on the guise of "free expression of ideas" is too drastic and will do more harm than good. Can the 130 countries who signed the TRIPS agreement go wrong on their position to protect intellectual property rights? I have yet to hear a convincing argument that proves otherwise.

2) <u>There is a need to distinguish each kind of intellectual property and treat them differently:</u> There is a need to know the difference between patent, trademark, copyright and trade secret as each kind of intellectual property has a different nature, purpose and objective. The WIPO puts them in two big categories: (1) Industrial property which includes patents and trademarks; and (2) Copyright and other related rights. Knowing the difference of each will kind will allow the for its better management and use.

In his article *"Did you say "Intellectual Property? It is a Seductive Mirage",* Richard M. Stallman argues that it is wrong to lump all types of intellectual property (patent, trademark and copyright) into one term "intellectual property" because they are very different from each other. Each kind of intellectual property has a different nature and purpose. For this reason, the claim that intellectual property promotes innovation may apply only to patents and not to trademark, copyright or trade secret. In the same vein, he argues that "creativity" is not concerned with patent or trademark and only with copyright:

> *"Copyright law is not concerned with innovation; a pop song or novel is copyrighted even if there is nothing innovative about it; Trademark law is not concerned with innovation; if I start a tea store and call it "rms tea", that would be a solid trademark even if I sell the same teas*

in the same way as everyone else. Trade secret law is not concerned with innovation, except tangentially; my list of tea customers would be a trade secret with nothing to do with innovation.

You will also see assertions that "intellectual property" is concerned with "creativity", but really that only fits copyright law. More than creativity is needed to make a patentable invention. Trademark law and trade secret law have nothing to do with creativity; the name "rms tea" isn't creative at all, and neither is my secret list of tea customers."[21]

3. <u>There is a need to veer away from the "Sword and Shield" approach to a more holistic approach to intellectual property management:</u> The traditional concept of intellectual property right is to use it as a "sword" and a "shield". As a sword, an intellectual property right can be used as a weapon to file suits against those who use it without permission of the right. As a shield, it is used to parry the attacks of a competitor who uses the same or similar technology. While this is still true in the legal sense, it does not make business sense in the long run. In his book, Intellectual Property Strategy, John Palfrey suggests a new approach to intellectual property without, however, abandoning the sword and the shield. He calls for a new approach based on strategies that promote openness and connectedness – of inclusivity and not exclusivity. He makes four recommendations, to which I fully agree on:

"1.Consider intellectual property to be an asset (rather than solely a sword and a shield) xxx.

2. Be open to what your customers, competitors and others can offer you in terms of intellectual property xxx.

3. Build from the premise that intellectual property is most valuable insofar as it creates freedom of action for your organization rather than serving as an offensive weapon against others. Xxx

4. Establishing a strategy that enables you to be creative and flexible in what you do with intellectual property – by thinking beyond the sword and shield. xxx"[22]

In other words, intellectual property needs to viewed on a different light. It should be treated not as a weapon or shield but as an asset that is necessary for the success of any business or undertaking. It is also an appreciation of the fact that in today's digital and information age, intellectual property is the new oil of the 21st century.

[21] Stallman, p. 1-2.

[22] Palfrey, pp. 14-15.

V. Conclusion

Intellectual property, just like money, is not an end but only a means to an end. As previously discussed, it is a neutral tool that can used to attain further ends. Used properly and for the good, it can help sustain innovation and creative activity. Used improperly and for the bad, it can impede the free flow of information and retard innovation. The goal is to use intellectual property properly and for the good so that it can continue to motivate inventors, authors and artists in their innovative activities. A paradigm shift is needed in order to look at intellectual property not solely as a weapon or armor (sword and shield) but as an instrument to have open dialogue with other owners of intellectual property. In the words of John Palfrey in his book "Intellectual Property Strategy", *"strategies grounded in openness and connectedness to others (in technical terms "interoperability) can offer surprising benefits to those who are willing to experiment with new approaches."*[23] Towards this goal, the government should provide the legal infrastructure to strike a balance between serving the interests of the owners of intellectual property and that of society.

The rapid development in digital technology, artificial intelligence and data science has put the pressure on legal and political infrustructure to keep pace with the changes of the times. Such developments pose both opportunities and threats to the intellectual property system as they were not specifically anticipated when the system was put into place. The intellectual property system should make changes in the legal, social and political infrastructure to make intellectual property a tool to respond to these technological developments and to promote innovation and creativity which will lead to progress and economic development. Indeed, differences the countries' legal, political and social systems will play a role in responding to these new challenges. Different countries will have to consider their own social, cultural, political and legal system to effect these changes as there is no "one-size fits all" solution to the same problem. Of course, developed countries will have more resources and so they need to give a helping hand to the less developed and developing countries to achieve inclusive growth globally. As aptly put by Shahid Alikhan in his book "Social Economic Benefits of Intellectual Property Protection in Developing Countries":

> *"The promotion of national creative and innovative activity is the bedrock on which the foundations of national industrial and economic progress must rest, and to promote it, adequate and effective protection of intellectual property rights is a basic precondition. Innovation in technology is moving very fast and confidence in the intellectual property system is a powerful stimulus to such innovation. The protection of intellectual property rights also influences investment decisions. The protection of these rights is a priority for enterprises eager and willing to confront the realities of competition. Attracting investment in a world of hyper competition will become harder wherever intellectual property protection is not strong or is ineffective*."[24]

[23] Palfrey, p. 4.
[24] Alikhan, pp. 2-3.

The theories for justifying intellectual property protection discussed above, while not complete and has limitations, provides enough basis for protecting intellectual property rights. At the very least, these theories have raised awareness about the need to examine the intellectual property system and explore new theories or combining existing ones to fully justify the existence of the intellectual property system, which can be the subject of another paper.

The patent system is not perfect and there is a need to revisit the regulatory environment of intellectual property. Between these two choices, there is still reason to justify protection of intellectual property rights. Despite the gaps in the theories and the arguments against intellectual property protection, there is still reason to believe in the intellectual property system. If we still believe in protecting property in general, why should we treat intellectual property differently? The key is to encourage innovation while pursuing public ends. This is a delicate balance which needs to be addressed for intellectual property to be relevant in the 21st century.

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Comments:
Creation Date: 1/5/18 2:56:00 PM
Change Number: 2
Last Saved On: 1/5/18 2:56:00 PM
Last Saved By: Christopher Cruz
Total Editing Time: 0 Minutes
Last Printed On: 1/5/18 2:56:00 PM
As of Last Complete Printing
Number of Pages: 12
Number of Words: 4,798 (approx.)
Number of Characters: 27,349 (approx.)