

# Intellectual Property in a Digital Age

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## **Introduction**

Piracy of intellectual property (IP)—specifically copyrights—is an ever-growing concern in the United States. The traditional methods of enforcement are not effective in protecting IP anymore because computer technology evolves too quickly for us to create regulations. Since computer technology (i.e. the internet) continues to expand at an increasing rate, new problems arise that we have not yet conceived—the technology has shifted from analog to digital, which presents additional difficulties enforcing the spread of IP, and allows more people to violate the rights of IP owners. The ethical dilemma is the ongoing violation of the fairness and utilitarian models of ethics. Additionally, we cannot enforce regulations against piracy of IP and we need to change certain aspects surrounding IP; one solution may simply be to change the current compensation structure based on the efficiency approach.

## **Fairness and Utilitarian Models**

The Fairness (or justice) approach builds on the idea that all equals should be treated equal. Applied to ethics—“all ethical actions should treat all humans equally—and if not equally, then fairly based on some standard that is defensible.”<sup>1</sup> In this case, IP owners need to be compensated justly for their labor and work in creating IP.

The Utilitarian Model suggests that the best solution to an ethical quandary is the one that “provides the greatest good and does the least amount of harm for all who are affected—customers, employees, shareholders, the community, and the environment.” Since current laws and regulations are not protecting IP owners, a violation of the Utilitarian Model exists. A new compensations structure could provide the IP owners, advertisers, and consumers with more benefits while decreasing or eliminating the number of people that obtain IP illegally.

## **Current Conception of IP**

Since we do not live in a social vacuum, our culture creates and shares innovations with society in order for the creator to reap some sort of benefit. Ideas often become public knowledge and are the result of, “an oversupply of ideas from other,”<sup>2</sup> innovators who have already published their works. Using public IP often allows others to contribute to shared ideas. In fact, many inventors draw upon others’ works or previously published pieces in order to create new works; however, since the change from analog to digital technology, and the invention of the internet, IP can be transmitted, copied, and exchanged at rapid speeds with little to no cost.

For the purpose of this paper, we define property as a collection of legal rights to control something. Additionally, Resnik argues that, “the property regime is a social institution that serves particular purposes in society.”<sup>3</sup>

Although we generally think of property in terms of land and objects, Resnik argues that if there were no people, land would not be anyone’s property; we are the ones that create a legal status. Resnik states, “Property is a three-place relationship between an object, and individual, and society.”<sup>3</sup>

Similarly, Peter Lewin suggests that we build our economies around property rights and “without property rights markets could not exist, and without markets, production and consumption would be impossible. Economic interest, which is one of the most significant interests that property rights protect, contributes to the market economy.”<sup>4</sup>

The United States’ first intellectual property laws protected creators by offering them temporary monopolies over their creations. There are three methods of protecting creations: patents, trademarks and copyrights. Patent law protects an idea, design, or a new product meeting three criteria: 1) novel (new and different), 2) useful, and 3) non-obvious. The creator of a patent receives protection for 20 years, after which anyone can duplicate the invention. A trademark or representation of goods grants the owners of trademarks to exclusive use, which they can renew forever.

This paper focuses on copyrighted property. Initially copyright law only included books and mechanical designs, but evolved to include musical recordings, architectural designs, software code and other works that could be reproduced or communicated. Under copyright protection, creative works can be used under certain circumstances such as a review or criticism, use in a parody, a brief quote in a news report, or a reproduction by a teacher for a lesson. Additionally, due to changing economies and technology, property rights change over time to

continue protecting interests. Currently, IP requires different legal protection because it's "non-exclusive." In other words, two people can own and use the same IP without preventing others from using it.

### **The Efficiency Model**

If we accept the claim that economies are built around property rights, then one logical conclusion is that property rights are used to promote economic benefit.

The efficiency method, which is a narrowly focused consequential model that only looks at impacts on the economy, suggests that a new compensation structure is the most logical. This method is based on the idea that, "any laws should be based on the goal of social-wealth maximization, of achieving the largest possible value-added for society as a whole, regardless of the particular distribution of that wealth."<sup>4</sup>

One argument is to increase the consequences and target the people downloading and copying IP. Although this approach seems rational, thousands of people currently download and copy IP illegally, making it costly to initiate lawsuits against each of these individuals. Furthermore, as technology continues to advance, so does the number of loopholes. For every regulation or prevention measure put in place, there is a way to circumvent it. For example, hackers can decrypt protected files with code (which they can share online).

Additionally, creating stricter IP rules prevents possible economic benefits. Lemle provides an example that, when the VCR first came out, copyright industries tried to ban it; however, the VCR created new markets and actually provided additional profits to copyright owners.<sup>3</sup> P2P networks are similar and could lead to greater advantages for IP owners.

There are millions of items downloaded without the consent of the owning parties. In a single day, the Recording Industry Association of America (RIAA) sued 15,000 college students for downloading copyrighted music.<sup>5</sup> Taking the offending groups to court did little to curb this behavior.<sup>6</sup> Arresting or suing enough people to prevent copyright violations is difficult due to the increasing amount of people illegally obtaining IP. Additionally, tracking who is responsible for each and every infraction is almost impossible. On a local area network where multiple users share one connection, it is possible for the owner of that network to be sued for downloading copyrighted material despite never having done so.<sup>7</sup> Because there is a lack of records on copyrighted material, libraries are protecting orphaned-books fearing that they may violate

copyrights that may no longer exist.<sup>8</sup> Considering the massive amount of content available to be used or stolen, it is difficult to regulate piracy. If we prevent content from being digitized, reproduced and shared, content can slowly rot away in libraries.<sup>8</sup>

## **A New Environment**

Computer technology continues to evolve. Due to the continual formation of new, unimaginable problems, creating rules to regulate the transfer and illegal downloading of IP is almost impossible.

Joseph Pelton condensed human history into a cosmic month and demonstrated that “telepower” (electronic computers, rockets, satellites, lasers...etc) represents merely 15 seconds out of the entire month of our existence.<sup>9</sup> Moreover, the internet, which became public in 1994, only represents a fraction of the 15 seconds, yet we continue to use analog-based laws that are not applicable to the new digital environment.

Furthermore, the change from analog to digital creates additional problems enforcing the illegal transfer of IP. For example, in analog environments, copying books or music was relatively time consuming and costly. One had to wait while a record or cassette tape played in order to copy music. Similarly, to copy books, one had to pay for copying and wait for every page to print. Now, one simply downloads, shares, or transfers any piece of IP in seconds and relatively cost free. Additionally, digital duplication does not degrade the quality from copy-to-copy as is the case with analog material. A maintained quality, combined with the ease of copying, allows users to copy material from any source rather than a primary, good quality source.

The ability to copy and spread IP from any source also increases the difficulty to regulate piracy. In analog environments, if an end-user made a copy of IP, they were hurting the owner with just one copy. Now however, if an end-user posts IP online, thousands of other end-users can duplicate the work and post it for thousands more to download. Now that the end-user (and the other end-users downloading IP) can transfer IP, everyone is in the role of a counterfeiter, and it is very difficult for IP owners to stop the transfer of their property.

## **Re-conceptualizing IP**

The old rules and regulations regarding IP are failing. The strict protection of use and distribution fails to provide protection for the creator and can lead to negative repercussions on innocent parties. One way to encourage creative works is to look at the spread of intellectual property as a sharing experience instead of an opportunity to make money. Once this is done, possibilities to exploit the creator or the consumer become limited. Under a new definition of IP, a social justice will arise from the users encouraging innovation. Encouragement from the user will come from a shared experience and/or contribution. Intellectual property created by one party but open to the public promotes constant innovation provided there is an adequate compensation structure.

More people can store and move data due to decreasing costs of bandwidth and storage. Furthermore, limiting factors such as compression and quality no longer deter people from downloading content from the internet. Proprietors of IP can embrace this new access to IP. Many artists are choosing the web exclusively to distribute music and are doing well from this distribution. Koopa, an unsigned punk-rock group did not have a record company to distribute their album nor a large budget to market themselves, but they achieved top-40 status and became the first band to do so through online sales and as an unsigned band.<sup>10</sup> Fans paid approximately 99 cents per song, allowing Koopa to make money and gain bargaining power to choose a label. This demonstrates how the internet can be a powerful tool, which if applied correctly can promote an artist's work and allow for financial compensation.

Although owners of IP feel they should have complete control over who has the ability to view their innovations, there should also be a responsibility to allow the public access to this property so that others have the opportunity to learn from it. Because IP includes things such as ideas, principles, and knowledge, it is becoming increasingly difficult to define whether the owner's can lay claim to their ideas. The public can easily copyright author's original works; however, they cannot copyright an individual's personal ideas and knowledge that they possess. These characteristics can only be retrieved by the owner, who can formulate these ideas into a piece of work, which can then be copyrighted.<sup>11</sup>

As mentioned earlier, IP is unlike real property because it can be viewed and/or used by many people at one time, whereas real property can only withstand being in use by one individual at a time. This is a main argument towards whether or not owners should have control over their work. In addition, two separate people can use the same IP at the same time without

consuming it through their use of the property.<sup>11</sup> Therefore, by allowing the public access to their property, it does not affect the original piece of property and the owner still has the ability to access the original piece of work. The only problem associated with this spread of intellectual property to the public is that, by granting these viewing rights to the public, it inhibits the owner's ability to sell their property at their own discretion.

On the other hand, when owners decide not to share their work with others it can prevent the innovation of new ideas. This highlights the fact that innovation is the result of many people coming before and presenting their ideas, which others can grow upon, and eventually create their own piece of IP. Because of this building-up of ideas, the laborer should only be entitled to the value that his ideas added, and not the entire value of the ensuing product.<sup>11</sup> As a result, the entire work is a collection of authors who may or may not still be alive. Once the owner receives compensation, however, there should be no restrictions preventing the public to view the property.

### **Moral Disconnection**

Another complication caused by the new digital environment is a moral disconnection between end-users and IP owners. Because the internet is such a large network and human contact does not exist online, users experience this moral disconnection and tend to ignore morality models—in this case the Efficiency Model. Furthermore, Bandura suggests that moral disengagement follows a progressive transformation—that is, we gradually change our thinking.<sup>12</sup> If people upheld the Efficiency Model, users would voluntarily reimburse the owner of the IP downloaded.

Similarly, a diffusion of responsibility also exists. Nick G., a student at CU Boulder stated that, “everyone downloads; so even if I paid for something that I downloaded [illegally], it wouldn't really make a difference.” Nick's concern is valid; if we believe that everyone is downloading IP illegally, then one person could not make a difference; however, if we believe that everyone is compensating IP owners, then one person could make a difference.

### **Conclusion**

James Moor wrote about computer ethics, pointing out that, “a typical problem in computer ethics arises because there is a policy vacuum about how computer technology should

be used. Computers provide us with new capabilities and these in turn give us new choices for action. Often, either no policies for conduct in these situations exist or existing policies seem inadequate.”<sup>13</sup> We accept that we cannot regulate piracy, and should stop trying to create new regulations; instead, we focus our energy towards ensuring that IP owners be justly compensated in order to promote innovation.

Copyright laws take a utilitarian approach towards protecting IP owners’ interests; however, enforcement no longer works due to the change in technology. This situation suggests that a different (or additional) moral model needs to be applied to piracy of IP. The Fairness or Justice Model promotes the compensation for IP owners; the only question is how to ensure just compensation to the owners.

One way of guaranteeing compensation to the owners would be to put IP online and track the amount of “hits” the owners’ pages get, and then compensate the owners based on the number of “hits.” One concern is deciding who will pay the IP owners. YouTube™ already implements a similar structure. Advertisers put ads on the web pages and in return, pay for the site. Advertisers could put their banner advertisements on sites and pay the IP owners for every “hit” on the website. Since advertisers already use banner advertisements on the internet, we assume that they will want to advertise on owners’ web pages.

Another compensation plan could include an IP “network site” similar to Myspace™. Membership to the network is free and each IP owner has a profile with his/her works on it. The amount of downloads of each creative work is easily traceable, and advertisers can compensate the owners. In addition, because people visit the actual IP owner’s page, moral disengagement decreases and visitors virtuously donate money for the IP they download. New compensation structures will encourage the development of IP. If society fails to support the creators and owners of IP, markets and economies will fail and society will suffer the negative effects. It is in the best interest of everyone to seek responsible use and distribution of intellectual property.

## Works Cited

- [1] M. Velasquez, D. Moberg, M. J. Meyer, T. Shanks, M. R. McLean, D. DeCosse, C. André, and K. O. Hanson., "A Framework for Thinking Ethically," *Issues in Ethics*, vol. 1, no. 2, Winter, 1998.
- [2] B. Martin, "Against Intellectual Property," *Information Liberation* , London: Freedom Press, 1998, pp. 29-55.
- [3] M. Lemle, and A. Reese, "Reducing Digital Copyright Infringement Without Restricting Innovation." *Stanford Law Review* XXnnn 103-187.
- [4] P. Lewin, " Creativity or Coercion: Alternative Perspectives on Rights to Intellectual Property," *Journal of Business Ethics* , vol. 71, no. 4, pp. 441-455 , 207.
- [5] A. M. Anderson, "RIAA Burns U Students for Downloading," [Online Newspaper] Dec.2006, [2007 Jan 24th], Available at:  
<http://www.mndaily.com/articles/2005/12/12/66570>
- [6] L. Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* , New York: Random House, 2001.
- [7] K. Ashcroft, 2004 U.S. Dist. Lexis 24090 (N.D. Cal. Nov 19, 2004), on appeal Sub nom. Kahle v. Gonzales.
- [8] T. Covey, "Acquiring Copyright Permission To Digitize and Provide Open Access to Books" [Online Document] October 2005 [2007, Jan 24th] Available at:  
<http://www.diglib.org/pubs/dlf105/dlf105.htm#brief>
- [9] J. Pelton, *Future View: Communications, Technology and Society in the 21st Century*. New York: Meredith, 1992, 15-16.
- [10] BBC News, January 2007, "Unsigned Band Make Chart History"  
See: <http://news.bbc.co.uk/2/hi/entertainment/6260995.stm>
- [11] E. C. Hettinger, " Justifying Intellectual Property," *Philosophy and Public Affairs* , vol. 18, pp. 31-52, 1989.
- [12] A. Bandura, " Moral Disengagement in the Perpetration of Inhumanities," *Personality and Social Psychology Review*, vol. 3, no. 3, pp. 193-209, 1999.
- [13] J. Moore, 1985, "What Is Computer Ethics?" In Bynum, Terrell Ward, ed. *Computers and Ethics*, Blackwell, 266-75.