

Intellectual Property and Information Control

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CHAPTER 1

INTRODUCTION AND OVERVIEW

I would like to leave you with the impression that if you make a single illegal copy of our software, you will spend the next five years in court, the following ten in prison, and forever after your soul will suffer eternal damnation.

V. Rosenburgh, "Copyright and the New Technology"¹

INTRODUCTION

Access to ideas, and to the physical embodiments of ideas, fundamentally shapes our opportunities, goals, and life-long projects. The explosion of computer technology and the proliferation of digital networks has radically altered the way that ideas and information are gathered and manipulated. New models of information access and control promise profound changes for each of us — as life-altering as the changes that flowed from the introduction of Gutenberg's press, Darwin's theory of evolution, or Pasteur's germ theory of disease.

¹Quoted in Robert P. Benko's, *Protecting Intellectual Property Rights* (Washington, D. C.: American Enterprise Institute for Public Policy Research, 1987).

In modern times the debate over the control and ownership of digital information and intellectual property has been waged by two factions. Standing in the way of the cyber-punks, hackers, and net surfers who claim that "information wants to be free" and that intellectual property rights give undue credit to authors and inventors, are the collected cannons of Anglo-American copyright, patent, and trade secret law. Defenders of these institutions typically argue that granting rights to authors and inventors is necessary for the optimal production of intellectual works and the corresponding gains in social utility. Information, like any other commodity can be bought and sold on the open market. Following Nathaniel Shaler many defenders of intellectual property argue that "there is no property more peculiarly a Man's own than that which is produced by the Labour of his mind"² or "[I]t will be clearly seen that intellectual property is, after all, the only absolute possession in the world. . . The man who brings out of nothingness some child of his thought has rights therein which cannot belong to any other sort of property."³

Conversely, opponents argue that intellectual property rights give undue credit to authors and inventors and serve to restrict the free flow of information that would otherwise benefit everyone. Another reason why many individuals find it difficult recognize intellectual property rights is that they see ideas as part of one's common culture. Ideas are not to be corralled or hoarded up — they are the common currency of thought, speech, and language.⁴ Thomas Jefferson wrote:

²Copyright Law, State of Massachusetts, 1782.

³Nathaniel Shaler, *Literary Property*.

⁴Spooner notes that "One obstacle to the universal acknowledgment of property in ideas, has been this. Mankind *freely give away* so large a portion of their ideas, and so few of their ideas are of sufficient value to bring anything in the market, (except in the market of common conversation, where men mutually exchange their ideas) that persons, who have not reasoned on the subject, have naturally *fallen into the habit of thinking*, that ideas were not subjects of property; and have consequently been slow to admit that, as a matter of sound theory or law, men had a strict right of property in *any* of their ideas." Lysander Spooner, *The Law of Intellectual Property* (M & S Press, 1971), 37-38 (Originally published in 1855).

If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density at any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, in nature, be a subject of property.⁵

Jefferson was impressed with the non-rivalrous nature of intellectual property — intellectual works can be used and consumed by many individuals concurrently. He was certainly opposed to granting intellectual property rights to ideas already in the public domain. While Jefferson's metaphor of passing light or fire along to others is a strong one, I wonder if he would defend this view if the creator of the light had labored ten years to produce it. In subsequent chapters I will argue that the non-rivalrous nature of intellectual works leads in a different direction — toward intellectual property rights.

Modern day disciples of Shaler and Jefferson push further and argue in a similar fashion as exhibited by the quote that begins this chapter and the following view expressed in the Bellagio Declaration.

In general, systems built around the author paradigm tend to obscure or undervalue the importance of "the public domain," the intellectual and cultural commons from which future works will be constructed . . . [w]e declare that in an era where information is among the most precious of all resources, intellectual property rights cannot be framed by the few to be applied to the many . . . We must reimagine the international regime of intellectual property.⁶

⁵Thomas Jefferson, "Letter to Isaac McPherson, Monticello, August 13, 1813," in *XIII The Writings of Thomas Jefferson*, edited by A. Lipscomb (1904), 326-338.

⁶James Boyle, *Shamans, Software, and Spleens* (Cambridge Mass.: Harvard University Press, 1996), Appendix.

Moreover, international treaties like Trade Related Aspects of Intellectual Property, known as TRIPS, seek to pattern the global information infrastructure after Anglo-American copyright law. Defenders of rights to intellectual property find this agreement promising in that the rights of authors and inventors can be protected internationally. Many hackers, cyber-punks, programmers, net surfers, and others, support "idea anarchy" and argue for complete access to all kinds of information. This latter view is echoed by the policies of many developing countries who hold that intellectual works are social, not individual, products. It is claimed that the result of these latter attitudes about intellectual property has led to an explosion of copyright violations and international piracy. Consider the following table which focuses on international computer software piracy.

Country	% falling to piracy, 1992/1999	US \$ losses (million), 1992/1999
Australia	45/32	160/150
Denmark	48/29	67/59
France	73/39	1200/548
Germany	62/27	1000/652
Italy	86/44	550/421
Japan	92/31	3000/975
Korea	82/50	648/197
Singapore	41/51	24/61
Spain	86/53	362/247
Sweden	60/35	171/131
Taiwan	93/54	585/122
Thailand	99/81	181/82
UK	54/26	685/679
United States	35/25	1900/3191

Source: Business Software Alliance, 1992/1999

Table 1.1: Worldwide Software Piracy Table

". . . a 36 percent global piracy rate (1999) is still substantial. Currently more than one out of every three software applications installed in the world is pirated. This translates into \$12

billion lost due to software piracy. In the US alone, software piracy cost 109,000 jobs . . . "⁷ While this overstates the case because it is assumed that those who obtain goods from software pirates would have purchased legal copies, these numbers in the area of software ownership are alarming to those who would defend institutions of intellectual property.⁸

Things may be even worse for the recording industry where music swap sites like Napster make piracy easy and cost free. "Napster allows you to search for almost any song . . . finds the song on a fellow enthusiast's hard drive and then permits you to get the song for yourself, *right now*."⁹ You can then burn your own CD, download the song to an MP3 player, or simply cue it up on your own computer. Millions of college students and music junkies have been flocking to Napster or similar sites and amassing huge music libraries — for free. One artist manager claimed, "Basically they're saying our art is worthless . . . music used to be collectable now it is disposable."¹⁰ Lars Ulrich, the drummer for Metallica, put the point the following way. "This is an argument about intellectual property . . . where does it end? Should journalists work for free? Should lawyers? Engineers? Plumbers?"¹¹

Even so, many argue that the information age has passed by the old, and now outdated, copyright paradigm. Where institutions of copyright may have worked well for the written page they cannot be retrofitted to accommodate the bit streams of digitized intellectual works. John Perry Barlow, a writer for *Wired Magazine*, echoes this view.

This vessel, the accumulated canon of copyright and patent law, was developed to convey forms and methods of expression entirely different from the vaporous cargo it is now being asked to carry. It is leaking as much from within as from

⁷Business Software Alliance, <http://www.nopiracy.com>

⁸For an illuminating account of how software is cracked, re-packaged, and uploaded for distribution see, David McCandless, "Warez Warz," *Wired Magazine* 5.04 (April 1997).

⁹Steven Levy, "The Noisy War Over Napster," *Newsweek*, June 5 2000, p. 48.

¹⁰Steven Levy, "The Noisy War Over Napster," *Newsweek*, June 5 2000, p. 52. The manager was Ron Stone.

¹¹Lars Ulrich, "It's Our Property," *Newsweek*, June 5 2000, p. 54.

without . . . Legal efforts to keep the old boat floating are taking three forms: a frenzy of deck chair rearrangement, stern warnings to the passengers that if she goes down, they will face harsh criminal penalties, and serene, glassy-eyed denial . . . Intellectual property law cannot be patched, retrofitted, or expanded to contain digitized expression any more than real estate law might be revised to cover the allocation of broadcasting spectrum (which, in fact, rather resembles what is being attempted here). We will need to develop an entirely new set of methods as befits this entirely new set of circumstances.¹²

The problem generated by the digitization of intellectual property for copyright and patent is that these institutions protect durable physical expressions, but digital property is hardly physical or durable in the same way as books, movies, or processes of manufacture. Intellectual property law has always sought to separate the idea from its physical expression, granting ownership rights to the latter but not to the former. ". . . the rights of invention and authorship adhered to activities in the physical world. One didn't get paid for ideas, but for the ability to deliver them into reality."¹³ Many within the Anglo-American tradition claim that ideas are public property while physical embodiments of ideas may be privately owned. A major problem for an on-line age is that there may be no way to separate idea from expression. If so, modern Anglo-American institutions of intellectual property will have to be reworked, or maybe even abandoned altogether.

Complicating things still further are the issues that surround individual privacy, public accountability, free speech, and information control. There is an obvious tension between privacy and free speech. While thought, expression, and a free press are recognizably beneficial they are not always so — not when what is expressed unjustifiably invades private domains. The balance struck in the last century between privacy and free speech is being overturned by digital networking and information trading. For example with the right kind of computer savvy, I can now go on-line and find out intimate personal details about almost

¹²J. P. Barlow, "Everything You Know About Intellectual Property Is Wrong," in *Intellectual Property: Moral, Legal, and International Dilemmas*, edited by A. Moore (Lanham, Md.: Rowman & Littlefield, 1997), Chapter 15, 350.

¹³Barlow, "Everything You Know About Intellectual Property Is Wrong," 351.

anyone and offer it all up for public consumption. Moreover, if I am sly enough I may be able to do this anonymously.

Information gathering technology is promising to turn our work environments and public streets into an Orwellian nightmare. Video surveillance, genetic screening, global positioning systems, and purchasing profiles may leave us with little privacy. Information about our medical histories, phone numbers, addresses, and eating preferences is owned and traded by information brokers, including our government. Computer technology and digital networks such as the Internet or World-Wide-Web have changed the game so-to-speak.

These issues raise deep philosophical problems. What is intellectual property and can rights to intellectual works be justified? Are abstract ideas and information, even sensitive personal information, the proper subjects of ownership? Can computer software and other digital information be protected? How should legal systems accommodate the ownership of intellectual property in an information age and what role should privacy rights play? Should protection extend to the electronic frontier of the Internet and the World Wide Web? What is the moral position of those who violate the intellectual property rights of others and how does this compare to the violation of physical property rights?

Throughout this work I develop answers to these questions or at least try to provide strategies for answering them. As we move further into what many call "the information age," clarity is needed at the philosophical level so that morally justified policies and institutions can be adopted with respect to intellectual property and information control. It is my hope that this work will facilitate and further philosophical inquiry in this important area.

OVERVIEW OF A THEORY

In the broadest terms my goal in this work is to justify rights to intellectual and intangible property. Some think that this goal is easily attained and offer the following argument. Control should be granted to authors and inventors of intellectual property because granting

such control provides incentives necessary for social progress. Society ought to maximize social utility, therefore temporary rights to intellectual works should be granted. This strategy for justifying rights to intellectual property is typically given as the primary basis for Anglo-American copyright, patent, trademark, and trade secret institutions. Nevertheless, I think the argument is fundamentally flawed. With this in mind, I proceed on two fronts. First, a negative argument is given that undermines the aforementioned widely supported rule-utilitarian case for intellectual property. The hope is upon eliminating rule-utilitarian incentives-based arguments, the way will be cleared for a new Lockean justification.

My positive argument begins with an account of Locke's proviso that justified acquisitions of unowned objects must leave "enough and as good" for others.¹⁴ One way to interpret Locke's requirement is that it ensures the position of others is not worsened. This can be understood as a version of weak Pareto-superiority. If the possession and exclusion of an intellectual work makes no one worse off, then the acquisition ought to be permitted. In clarifying the issues that surround a Pareto-based proviso on acquisition, I defend an account of bettering and worsening and offer a solution to the baseline problem — what two situations do we compare to determine if someone has been worsened.

I argue that rights to intellectual works can be justified at both the level of acts and at the level of institutions. At both levels my argument turns on two features of intellectual property. First, intellectual works are non-rivalrous, meaning that they can be created, possessed, owned, and consumed by many individuals concurrently. Second, including allowances for independent creation, I argue that the frontier of intellectual property is practically infinite. Locke hints at this kind of practical infinity when he writes: "Nobody could think himself injured by the drinking of another man, though he took a good draught, who had a whole river of the same water left him to quench his thirst . . ."¹⁵ If I am correct,

¹⁴John Locke, *The Second Treatise of Government*, edited by Peter Laslett (New York: New American Library, 1965), Chapter 5, ¶ 33.

¹⁵Locke, *Second Treatise of Government*, Chapter 5, ¶ 33.

the case for Locke's water-drinker and the author or inventor are quite alike.

Finally, in light of the expansion of the Internet and the World Wide Web, a Lockean account of copyright, patent, and trade secret is developed along with an analysis of privacy, power, and the ownership of information. As already noted, governments as well as private companies, are compiling digital profiles of us and selling this information to advertising agencies, insurance companies, private investigators, and the like. While it is true that this information could be used for our benefit, history is replete with examples of the converse.

In the simplest terms, the problem I address is one of information control. Moreover, it does not matter what form the information takes — it could be a poem, a novel, a new invention, a computer program, military data, or sensitive personal information. The following quote from a Chinese military newspaper applies a number of these issues to information war.

After the Gulf War, when everyone was looking forward to eternal peace, a new military revolution emerged. This revolution is essentially a transformation from the mechanized warfare of the industrial age to the information warfare of the information age. Information warfare is a war of decisions and control, a war of knowledge, and a war of intellect. The aim of information warfare will be gradually changed from 'preserving oneself and wiping out the enemy' to 'preserving oneself and controlling the opponent.' Information warfare includes electronic warfare, tactical deception, strategic deterrence, propaganda warfare, psychological warfare, network warfare, and structural sabotage.¹⁶

Our reliance on digital technology and computer networks has left us vulnerable to viruses, worms, programming miscalculations, and information war. Putting information war aside, it seems true to claim that the shift from an industrial economy to an information based economy has raised the stakes concerning the control of information and ideas. The claim is not that controlling information used to be unimportant and now it is important — alas, censorship in various forms has always been with us. What I think is true, however, is that

¹⁶*Jiefangjun Bao*, Chinese Army Newspaper, cited in *Wired Magazine*, John Carlin, "A Farewell to Arms" (May 1997).

computer networks coupled with digitally stored information is significantly changing the way we interact and communicate. We will have to be much more careful about what we do and say in the future both publicly and privately. Any information or ideas that we disclose, including inventions, recipes, or sensitive personal information, might soon be bouncing around cyberspace for anyone to access. The stakes are high indeed.