Who Owns the Key to the Vault? Hold-up, Lock-out, and Other Copyright Strategies

Andrea Pacelli

Follow this and additional works at: https://ir.lawnet.fordham.edu/iplj

Part of the Entertainment, Arts, and Sports Law Commons, and the Intellectual Property Law Commons

Recommended Citation
Available at: https://ir.lawnet.fordham.edu/iplj/vol18/iss5/7

This Note is brought to you for free and open access by FLASH: The Fordham Law Archive of Scholarship and History. It has been accepted for inclusion in Fordham Intellectual Property, Media and Entertainment Law Journal by an authorized editor of FLASH: The Fordham Law Archive of Scholarship and History. For more information, please contact tmelnick@law.fordham.edu.
Who Owns the Key to the Vault? Hold-up, Lock-out, and Other Copyright Strategies

Cover Page Footnote
The author would like to thank Professor Brett Frischmann for his advice and encouragement and Camilla Abder, Louise Cherkis, Michael Dunn, Jennifer Womack, and Jianhao Zheng for useful feedback.
Who Owns the Key to the Vault?
Hold-up, Lock-out, and Other Copyright Strategies

Andrea Pacelli*

INTRODUCTION .................................................................1230

I. ECONOMIC DEFINITION OF THE INTRINSIC VALUE OF
A WORK .............................................................................1233

II. CASE STUDIES: HOLD-UP AND LOCK-OUT.....................1238
   A. Hold-up ......................................................................1239
   B. Technological Lock-out ...........................................1242
   C. Reputational Lock-out .............................................1246
   D. Brand Lock-out ......................................................1249

III. A UNIFIED PICTURE OF HOLD-UP AND LOCK-OUT
     STRATEGIES ..............................................................1254

IV. DO STRATEGIC USES EXCEED THE BOUNDARIES OF
    COPYRIGHT LAW? .......................................................1259
   A. Copyright Law as “Mutant Trademark Law” ..........1259
   B. Copyright Misuse ..................................................1265

CONCLUSION .......................................................................1268

A PDF version of this article is available online at http://law.fordham.edu/publications/article.xhtml?pubID=200&id=2819. Visit http://www.iplj.net for access to the complete Journal archive.

* Patent Agent, King & Spalding LLP; J.D. Candidate, Fordham University School of Law, 2008; Ph.D., Electrical Engineering, Polytechnic Institute of Milan, 1998; Laurea (B.S. & M.S.), Electrical Engineering, Polytechnic Institute of Milan, 1993. The author would like to thank Professor Brett Frischmann for his advice and encouragement and Camilla Abder, Louise Cherkis, Michael Dunn, Jennifer Womack, and Jianhao Zheng for useful feedback. The views expressed in this Note are the author’s own and not those of his employer. The author may be contacted by email at ap@ieee.org.
Normally screws are so cheap and small and simple you think of them as unimportant. But now, as your Quality awareness becomes stronger, you realize that this one, individual, particular screw is neither cheap nor small nor unimportant. Right now this screw is worth exactly the selling price of the whole motorcycle, because the motorcycle is actually valueless until you get the screw out. With this reevaluation of the screw comes a willingness to expand your knowledge of it.¹

INTRODUCTION

A tacit assumption often surfaces in intellectual property law: that a copyright holder (or for that matter any intellectual property owner) can capture only a fraction of the “intrinsic value” of a work.² This view is consistent with the standard theory of incentives, according to which intellectual creation should be encouraged by allowing authors and inventors to “reap where they have sown.”³ Some have suggested that a copyright holder should collect (internalize) the entirety of the social or economic welfare associated with the work,⁴ in order to align private and social interests and thus allow the market to tend towards maximization of social welfare.⁵ Others have argued that many positive externalities cannot, and should not, be internalized.⁶ The debate

⁴ For a discussion of other aspects of the definition and the distinction between social welfare and economic welfare, see infra Part I.
⁶ See Frischmann & Lemley, supra note 2, at 259, 276–79.
turns upon which fraction of a work’s value should be captured as market value, but it appears that both sides assume that this fraction cannot exceed 100%, i.e., the totality of the intrinsic value.

The assumption that total social welfare is a “natural limit” for the market price of a copyrighted work is problematic for two reasons. The first argument is that negative externalities may allow a copyright owner to profit even as the world at large does not benefit from use of the work. For example, the net social benefit created by a training manual for terrorists is likely negative, and yet someone might be willing to purchase or license the copyright in that manual. In this example, the market price of the work (which is positive) exceeds its intrinsic value (which is negative). At least part of this gap is due to negative externalities. To use a classic analogy, a property owner or business owner may profit from environmentally harming activities, since the negative externalities of pollution are never fully internalized; this makes environmental regulation necessary.

The second argument against limiting market price to a work’s intrinsic value has nothing to do with externalities, but is related to unconventional uses of intellectual property rights in the context of certain business strategies. For example, an intellectual property owner who engages in a “hold-up” strategy is trying to leverage her bargaining advantage to extract a price that exceeds the fair value of the property. Likewise, a “lock-out” strategy seeks to use a piece of intellectual property as an “access code” to a product in order to exclude potential competitors. It is not difficult to show that in these and similar fact patterns, the strategic value of a work far exceeds whatever intrinsic value that work may have.

Starting from these preliminary considerations, this Note argues that all strategic uses of copyright law, including hold-ups and lock-outs, are just examples of a mismatch between the intrinsic value of a work and its market value. More importantly, it can be shown that all such strategies fall within a common

7 The reader who believes that one man’s terrorist is another’s freedom fighter may substitute a work of his or her choice.
8 See, e.g., Lemley, supra note 2, at 1038.
9 See infra Part II(A).
10 See infra Part II(B)–(D).
spectrum with hold-up at one end and lock-out at the other. While this may be true for intellectual property rights in general, copyright law offers some particularly compelling illustrations of the concept. In all of these examples, a work with a relatively small intrinsic value is the key to a vault. The only difference between hold-up and lock-out is whose money is in the vault. In other words, whether any particular fact pattern falls closer to the lock-out or to the hold-up end of the spectrum depends on whether the purpose of the strategy is to protect one’s own investment (i.e., locking a competitor out) or appropriating someone else’s investment (i.e., holding a target up). An intermediate situation is also possible, where both sides put some money into the vault but only one of them holds the key. Viewed in this light, strategic uses of copyright protection are in clear tension with the overarching policies of copyright law, because they essentially reduce the work of authorship to a tool for achieving a purpose wholly unconnected to the nature of the work itself.

A critical analysis of strategic uses of copyright can take at least two independent routes. The first argument is of a legal nature: are strategic uses consistent with the constitutional and statutory scheme of federal intellectual property law? The second argument is an equitable one: does enforcement of copyright for non-copyright-related purposes trigger the equitable doctrine of unclean hands, in its modern form of copyright misuse? Even if neither argument prevails, it is worth asking those questions in order to bring out into the open an issue of great importance in the current regime of ever-strengthening copyright protection.

To clarify, the issue is not whether hold-up and lock-out strategies are “right” or “wrong.” To some extent, every intellectual property owner exercising her rights excludes others from using her work, i.e., locks them out, or demands payment for allowing them to use it, i.e., holds them up. The terms “hold-up” and “lock-out” are used here as shorthand to denote litigation strategies that may be perfectly legitimate. Inequitable uses of copyright law can and should be addressed by generally applicable
equitable doctrines, such as laches and estoppel.\textsuperscript{11} The purpose of this Note is to explore an equally interesting, and less studied, issue: to what extent copyright law is the right tool to safeguard an economic interest that is only tenuously associated with the value of the intellectual creation that the law purports to promote. Put another way: is it desirable to let people use copyright law as a “toolbox” to create an ad-hoc protection for their economic interest, where that interest is already protected by other, more appropriate legal mechanisms? From a practice standpoint, is it desirable that plaintiff’s counsel always assert copyright infringement, in addition to other intellectual property claims, in order to avoid committing malpractice?

The rest of this Note proceeds as follows. Part I reviews the basic economic definition of the intrinsic value of a work of authorship, and concludes that economic analysis is more useful for its insights than for its quantitative results. Part II looks at specific examples of hold-up and lock-out strategies, showing that in each case the market price of the affected works exceeds whatever intrinsic value those works may have. Part III discusses a unified model for strategic uses of copyright protection, and presents a pictorial representation of the “strategic space” on which litigants operate. Part IV discusses whether strategic uses are compatible with copyright policies. Conclusions are briefly drawn at the end of the Note.

I. Economic Definition of the Intrinsic Value of a Work

Law-and-economics literature provides a rigorous, clear-cut definition of the intrinsic value of a work of authorship, as the total economic welfare deriving from the work.\textsuperscript{12} Economic welfare may be defined as the sum of three terms: the consumer surplus (i.e., the difference between the price that consumers would be willing to pay and the market price they actually end up paying);

\textsuperscript{11} The ambiguous relationship between legal principles and equitable standards is further discussed in Part IV(B), infra, in the context of copyright misuse.

the copyright holder’s gross profits; and the profits obtained by third parties that sell unauthorized copies of the work. In order to determine the total economic welfare, one must first define a market for the goods or services embodying the work (e.g., copies of a book). Second, one must know the demand curve (i.e., how many copies of the work would be sold at a given price), as well as other quantities, such as the production costs. Finally, once the stage for market action is set, the copyright holder will select a price that maximizes her profits.

Apart from quantitative results, economic analysis provides a key intuition: The value of a work cannot be defined in a vacuum, and has meaning only in the context of a market, i.e., an audience. If, for example, the number of potential users of the work increases, more copies of the book will be sold, and the value of the underlying literary work will correspondingly increase. Also, as an audience becomes more educated and sophisticated, it may better appreciate (and be willing to pay more) for intellectually challenging works. Whatever value a work may have is not a static quantity, but changes with the receptivity of a market to it. This insight, however, should not be carried too far, as some works increase in value with time only because they develop into commercial franchises.

This Note borrows from economic theory the basic definition of the value of a work as the total social welfare associated with the work. However, as elegant as economic theory is, it suffers from several shortcomings, which require a few drastic departures from the simplified framework conventionally adopted in law-and-economics works. The rest of this section is dedicated to a discussion of these caveats.

First, to be of any use, economic analysis requires knowledge of parameters that are notoriously difficult to estimate. For example, consumer surplus can only be computed from knowledge

---

14 Id. at 333.
15 Id.
16 Id. at 336.
17 This point is further discussed in Part III, infra.
of the demand curve, which will provide the highest price that each potential consumer would be willing to pay for a copy of the work. This leads back to square one—the market price of the rights associated to the work, including of course any strategic effects. As with other law-and-economics analyses, a rigorous definition of the intrinsic value of a work based on microeconomics may be one of those “stimulating intellectual exercises that are often lacking in real-world relevance.” Assume, however, that the economic definition of the value of a work is at least useful as a theoretical tool. This point will be examined at the end of this section.

Second, it is assumed as a crude approximation that the intrinsic value of a work is independent of the extent of protection afforded by the law. A fundamental insight from economic analysis is that the total economic welfare associated with any given work depends to some extent on the strength of the intellectual property rights associated with it, for example, by affecting the market price, cost of protection, and cost of infringement. In fact, one of the purposes of economic analysis is the identification of a legal regime that maximizes economic welfare. However, for the purposes of the following discussion, it is likely that such effects may be neglected to a first approximation. Common sense suggests that, given some degree of public access to a work, its long-term social effect will not be greatly dependent on the exact nature of the rights granted to its author. Moreover, millennia of pre-copyright literature indicate that, even in the total absence of legal protection, the creation of a work of authorship would have a significant net welfare impact. Therefore, it is assumed that a work of authorship has a value independent of the degree of protection associated with it.

Third, the subtle distinctions between the value of a work in itself and the market value of the rights in that work are neglected.

Under federal copyright law, ownership attaches to the rights rather than to the work itself. The owner of a copyright has a number of rights that range from the very narrow (e.g., display right) to the very broad (e.g., right of adaptation). Each of these rights has a market price, and one could imagine other, even stronger rights, such as the right to prevent people from speaking about a work at their dinner table. The current copyright regime is “leaky,” in the sense that it purposely prevents excessive internalization. As an academic exercise, one might think that in some ideal limit of an author’s “absolute” rights, the fair market value of the work will be identical to the total welfare associated with the work. In a more realistic legal framework, one should be able to recover less than that maximum amount; this is the “natural limit” assumption mentioned in Part I.

Fourth, the economic approach assumes a simplified, closed system that does not account for externalities. In other words, economic theory neglects the difference between economic welfare and social welfare. In the example in Part I, neglecting negative externalities leads to the conclusion that the terrorists’ training manual has a positive intrinsic value, since both consumer surplus and producer profit are positive. Positive externalities may likewise distort market dynamics. A book may make people think of new ideas and change society for the better, thus benefiting even people who have never even heard about the book in the first place. Professor Netanel has suggested that copyright protection may also promote democracy by providing incentives to creativity on one hand, and economic self-reliance (i.e., freedom from patronage) on the other. There are two ways to address the

---

23 See 17 U.S.C. § 106 (“[T]he owner of copyright under this title has the exclusive rights to . . . display the copyrighted work publicly”).
24 See id. (“[T]he owner of copyright under this title has the exclusive rights to . . . prepare derivative works based upon the copyrighted work”).
25 Frischmann, supra note 5, at 653.
26 See generally Cass R. Sunstein, Well-Being and the State, 107 Harv. L. Rev. 1303 (1994) (discussing the gap between objective indicators of economic welfare, such as gross national product, and social welfare, such as unemployment and poverty rates).
27 See Frischmann & Lemley, supra note 2, at 268–71.
problem of externalities in the economic analysis, neither of which is very satisfactory. The first approach is to remove externalities by adopting new legal rules that force full internalization. This runs into a number of problems—many externalities cannot be fully internalized, due for example to transaction costs, and even where they can be, property rights may distort market mechanisms even more than externalities. The other option is to simply ignore externalities, and define the intrinsic value of a work based on whatever can be internalized under the current legal regime. This fails to account for both the fraction of consumer surplus that cannot be internalized by the producer (e.g., uses of a work falling under the fair use exception) and any broader effects that the consumers themselves cannot fully internalize (e.g., the social benefits of education).

There is a general reason why the first four caveats are less important than one might think. In fact, all the fine details of the definition of the intrinsic value of a work are mostly academic for purposes of the following discussion. As the preceding discussion has shown, there are at least four ways in which one can define value: (1) total social welfare; (2) total economic welfare; (3) potential market value of the copyright owner’s rights under the hypothesis of “perfect” internalization; and (4) actual value of the rights in the current “leaky” copyright regime. Common sense suggests that the total social welfare should be the highest of the four because it captures all possible uses by all possible users. Actual value of the rights should be the lowest because it only captures some particular uses by a particular class of users. However, the next section will try to show that there are many cases in which this idealized picture is turned on its head and copyright owners (even within a “leaky” system) manage to apply a market price that exceeds the total social welfare associated with a work. In those situations, it does not really matter whether the intrinsic value is computed as the full social welfare or a fraction of it—the actual figure is irrelevant where in any case it is negligible as compared with the market value of the rights.

29 Frischmann, supra note 5, at 667.
30 Id. at 655, 671.
The last consideration leads to a final, and most important, caveat: The economic definition does not distinguish a work as such from other economic activities associated with it. However, in a hold-up or lock-out situation, those other economic activities may be much more significant than the work itself. What economics really defines is the welfare generated by a transaction, rather than just the literal object of that transaction. A transaction that nominally involves only the licensing or sale of the intellectual property might really be about transferring some larger economic interest, where the intellectual property is the key to that interest. Hence, there is a fundamental disconnect between what a work is really worth and what consumers may be willing to pay for it.

Where it is not easy to disentangle the economic value of a work from its market value, one should short-circuit economic theory and ask the direct question: how much social welfare the work as such creates, and not as part of some business strategy. One way to cut through the fog of economic theory is to perform a simple thought experiment: Imagine what would happen if the work under consideration was replaced with a different work of comparable intrinsic value. For example, a novel could be replaced with another novel of a similar genre, literary quality, page count, etc. If the situation remains substantially unchanged, one can infer that the transaction was about the work and not about something else. If instead the substitution has a significant impact on the market value of the work, it is probably the case that the work was instrumental to a broader business strategy.

II. CASE STUDIES: HOLD-UP AND LOCK-OUT

The preceding section has shown that a top-down approach, starting from an ab initio economic definition of the intrinsic value of a work, is difficult at best, and possibly impracticable. The rest of this Note will proceed instead in a bottom-up direction, starting from concrete examples with the ultimate purpose of identifying a few general principles. Since in all these examples intellectual property rights are used strategically rather than to protect the underlying works, it is easy to show that the market value of the
rights exceeds whatever intrinsic value the works may have. Two archetypal fact patterns will be considered: hold-up and lock-out.

A. Hold-up

Professors Lemley and Weiser define “hold-up” as a strategic use of litigation that takes advantage of the over-broad injunctive relief typically granted in intellectual property cases.\(^{31}\) Hold-up situations have received much attention in the patent field, and specifically with respect to the information technology industry, for two reasons. First, certain technologies such as wireless telecommunications are covered by so many patents that it would be unthinkable for any manufacturer to obtain opinion of counsel with respect to each of them.\(^{32}\) As a result, many manufacturers have no choice but to take the chance of infringing someone else’s patent. The second factor facilitating hold-up is that once infringement is discovered, the cost and delay associated with a design-around may often be unacceptable for the manufacturer.\(^{33}\) As a result, patent owners can extract settlement payments far in excess of what the manufacturers would have paid to license the technology before designing the product.\(^{34}\) In other words, patent hold-up is a typical situation in which the market price of a technology exceeds its “intrinsic value.”

Even though hold-up has mostly received attention in the context of patent rights, significant examples of such behavior can be found in the copyright arena. In a first fact pattern, the user of a work is not aware of the fact that someone else’s copyright may be infringed. This may happen, for example, where the original author of a work purports to assign all her rights to a publisher but years later the author, or her heirs, unexpectedly assert their copyright against the publisher. Such actions are typically brought

\(^{32}\) Id. at 797. As of October 21, 2007, there existed around 8,000 enforceable patents expressly reciting wireless telecommunications in their claims. This figure was obtained by a focused search for patents relating to wireless telecommunications. It is likely many more patents will also capture some subset of the field by covering, for example, batteries, displays, signal processing techniques, etc.
\(^{33}\) Id. at 794, 797–98.
\(^{34}\) Id. at 798.
under one of two legal theories: the termination right created by
the Copyright Act of 1976, or ambiguities in the interpretation of
a decade-old contract in view of new distribution technologies. It
is understood that this strategy is most lucrative where the
publisher has used the original work as a platform to build a major
media franchise, which becomes a “sitting duck” for copyright
infringement claims.

A different hold-up situation arises where the user of the work
is aware of the copyright holder’s rights, but she believes that the
use is legitimate. This may happen, for example, where the
defendant incorporates part of the plaintiff’s work into her own,
under the assumption that the incorporation qualifies as fair use or
de minimis. For example, in the recent high-profile decision in
Perfect 10 v. Amazon.com, the operator of a soft-porn website sued
Google and other internet search engines for displaying low-
resolution (“thumbnail”) versions of the plaintiff’s copyrighted
photographs as part of their search result pages. Since search
engines index an enormous amount of content in a fully automated

(C.D. Cal. 2007); Steinbeck v. McIntosh & Otis, Inc., 433 F. Supp. 2d 395 (S.D.N.Y.
2006); see also Lauren Beth Emerson, Termination of Transfer of Copyright: Able to
(discussing the deadlock between the heirs of Superman’s original authors, who claim
ownership in the copyright, and DC Comics, holder of various trademarks related to the
comic-book character).

36 See, e.g., Welles v. Turner Entm’t Co., 503 F.3d 728 (9th Cir. 2007); Boosey &
Hawkes Music Publishers, Ltd. v. Walt Disney Co., 145 F.3d 481 (2d Cir. 1998); Rey v.
Lafferty, 990 F.2d 1379 (1st Cir. 1993); Bartsch v. Metro-Goldwyn-Mayer, Inc., 391
F.2d 150 (2d Cir. 1968); Lee v. Marvel Enters., Inc., 386 F. Supp. 2d 235 (S.D.N.Y.
2005).

37 See, e.g., Emerson, supra note 35, at 241–42 (discussing the original authors’ heirs’
claim to damages exceeding $50 million, as a share of profits from all products
associated with the “S” crest appearing on Superman’s costume); Woods v. Bourne Co.,
60 F.3d 978 (2d Cir. 1995) (copyright infringement action brought in the early 1990’s
over a popular song written in 1926); Burroughs v. Metro-Goldwyn-Mayer, Inc., 683
F.2d 610 (2d Cir. 1982) (heirs of author of Tarzan novels, dating as far back to 1912,
seeking to enjoin production of a 1980 Hollywood blockbuster based on the original
story).

38 Perfect 10, Inc. v. Amazon.com, Inc., 487 F.3d 701, 713 (9th Cir. 2007); see also
Kelly v. Arriba Soft Corp., 336 F.3d 811 (9th Cir. 2003) (similar fact pattern). For an
example involving more traditional media, see, e.g., Ringgold v. Black Entm’t TV, 126
F.3d 70 (2d Cir. 1997) (commercial reproduction of a copyrighted painting used as
background decoration in a television show).
way, it is likely that Google did not intentionally copy those images. Moreover, the thumbnails were the result of Google’s indexing of third-party websites that posted Perfect 10’s images without authorization. Finally, the only economic harm alleged by Perfect 10 (the displacement of its own reduced-sized images for use on cell phones) was of debatable significance. All these facts point to the use of copyright protection to extract a fraction of Google’s huge profits rather than prevent free-riding on Perfect 10’s efforts. The hold-up plaintiff typically seeks an injunction, which would give her the power to severely harm, or even cripple, the defendant’s business. This allows the plaintiff to exploit her temporary bargaining advantage and multiply the value of the work, since in some cases the only way to fully comply with an injunction is to shut down a web service altogether.

The policy debate on hold-up strategies mainly compares ethical arguments on one side to hard economic theory on the other. On one hand, a hold-up plaintiff easily looks like an “extortionist,” especially when she uses the threat of an injunction to obtain a settlement above fair market value. On the other hand, this is a slippery-slope argument, which subjects basic property rights to an arbitrary “smell test” and thus endangers vital market mechanisms. It is often difficult to distinguish the extortionist from the innovator who legitimately enforces her statutory rights, since in many of the cases cited above, the plaintiff is a highly creative artist in her own right. In fact, it has been suggested that enforcing property rights, even in hold-up

39 Perfect 10, 487 F.3d at 711.
40 Id. at 713.
41 See id. at 724–25 (characterizing the harm as “hypothetical”); Britton Payne, Comment, Imperfect 10: Digital Advances and Market Impact in Fair Use Analysis, 17 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 279, 289–93 (2006) (arguing that as a technical matter, it is unlikely that thumbnails could be used for display on cell phones).
42 See Lemley & Weiser, supra note 31, at 800–02.
44 See Lemley & Weiser, supra note 31, at 795.
situations, may be more likely to result in an efficient outcome than any other alternative.45

These examples show that a copyright owner implementing a hold-up strategy exploits a bargaining advantage to extract a price that exceeds the fair market value of the work involved. Structurally, all hold-up cases follow the same pattern, and it does not really matter for the purposes of this discussion whether this is the result of accidental circumstances, opportunism, or even unethical conduct. The defendant’s vulnerability typically derives from the concrete possibility of the plaintiff’s being granted an injunction and destroying the defendant’s business.46 Put another way, the interest at stake is essentially unrelated to the value of the underlying property—the copyrighted work is merely the key to the defendant’s vault. The next section will look at situations where copyright owners make sure they own the key to their own vault.

B. Technological Lock-out

A lock-out strategy is the use of copyrighted material as a “password” to gain access to a proprietary resource. A classic example from information theory can serve as an illustration. The binary digits “0” and “1” are usually represented by simple physical objects, such as an open or closed circuit, or a dot or a dash as in Morse code. However, it is just as legitimate to represent a “0” by the entire text of the King James Version of the Bible, and a “1” by the single word “Yes.”47 Certainly, that would be an inefficient way of communicating, but that is a purely technical issue. There is also a more interesting legal issue: If the King James Bible were protected by copyright, one could not communicate without infringing its owner’s exclusive rights.48

46 See Lemley & Weiser, supra note 31, at 800–02.
48 Although there would be no infringement for ordinary oral communication, the rights granted under 17 USC § 106 would come into play for any communication involving written media, public broadcast, etc.
Software and hardware companies have tried many times to use copyright to prevent competitors from selling products interoperable with their own.49 In the leading case of Lexmark International, Inc. v. Static Control Components, Inc., Lexmark, a printer manufacturer, used a lock-out technique to implement a price discrimination strategy.50 Lexmark sold two models of replacement toner cartridges for its printers.51 Full-price cartridges could be refilled by the customers or by third parties.52 Buyers of discounted cartridges were obligated to return the cartridges to Lexmark for refilling.53 Lexmark made the customers’ contractual obligation self-enforcing by building a semiconductor chip into the discounted cartridges, carrying a short software program.54 The printer used two different digital signatures to verify that the program was actually present on the cartridge.55 If either verification step failed, the printer stopped working.56 Static Control Components (SCC) was a supplier of chips for competing toner-cartridge manufacturers.57 Because of Lexmark’s lock-out, the only way SCC could create a compatible chip was to copy the code verbatim, thus triggering a lawsuit for copyright infringement.58

Information theory provides a simple interpretation, and a quantitative definition, of lock-out. As in the King James Bible example, the copyrighted software program is used as a binary code. The presence of the software indicates authorization (“1”);
its absence locks out the competitor (“0”). In quantitative terms, the signature of a lock-out strategy is the mismatch between the high information content of a work of authorship, and the low quantity of information it conveys when used as a lock-out code.\(^{59}\) A complex work such as the Bible is rich in information content, because the same story can be told in innumerable ways.\(^{60}\) However all this information is wasted when the work is used to carry only one bit of information. Even such a short program as Lexmark’s contained 55 bytes,\(^{61}\) or 440 bits of information. Of course, since the program carried only one bit of effective information, the remaining 339 bits were redundant.

Courts have generally not been very favorable to lock-out strategies. For example, the *Lexmark* court suggested that the lock-out software program was too short to be worthy of copyright protection, or, equivalently, that the coding was entirely dictated by functional and efficiency constraints, and thus not sufficiently expressive even under the permissive *Feist* standard.\(^{62}\) Moreover, even if the software itself were protected under copyright law, its use as a lock-out code would cause the entirety of the expression to merge into its functionality.\(^{63}\) Finally, copying of a lock-out code for strict interoperability purposes could be covered by the fair use exception.\(^{64}\) Courts have recognized a fair use defense for reverse-engineering where necessary to gain access to the functional aspects of a computer program.\(^{65}\) Likewise, the incorporation of copyrighted software into a new product to the minimum extent necessary for interoperability should also qualify as fair use.\(^{66}\)


\(^{60}\) See id. at 119.

\(^{61}\) *Lexmark*, 387 F.3d at 529–30.


\(^{63}\) See id. at 536.


\(^{65}\) *Sega*, 977 F.2d at 1527–28.

Other forms of digital information have been used as lock-out codes, also without great success. For example, software companies have asserted copyright over a user interface, i.e., a specific combination of inputs and outputs that a user needs to operate a program.\textsuperscript{67} Copyright infringement has also been claimed against competitors who copied non-executable binary codes necessary for software compatibility.\textsuperscript{68} A third example is the copyright protection of “operational outputs,” i.e., the streams of data that some computerized systems use during operation.\textsuperscript{69} Courts have generally been hostile to such claims and have held in the defendant’s favor, generally on the basis that such lock-out codes are functional\textsuperscript{70} or lack sufficient originality.\textsuperscript{71} Even in the context of the anticircumvention provisions of the DMCA, which lack a true fair use exception,\textsuperscript{72} courts have often been unwilling to enforce lock-out strategies.\textsuperscript{73}

One would be tempted to think that lock-out strategies are peculiar to the computer industry.\textsuperscript{74} However, some have come up with the clever idea of using actual literary works, such as short poems or \textit{haikus}, as lock-out codes.\textsuperscript{75} The idea seems to be that literary works are less likely to be found “functional” by a court than machine-readable code. The reasoning in other decisions involving lock-out codes suggests that this strategy is unlikely to

\begin{itemize}
\item \textsuperscript{67} See, e.g., Lotus Dev. Corp. v. Borland Int’l, Inc., 49 F.3d 807 (1st Cir. 1995).
\item \textsuperscript{68} See, e.g., Mitel, Inc. v. Iqtel, Inc., 124 F.3d 1366 (10th Cir. 1997).
\item \textsuperscript{70} See, e.g., Lotus, 49 F.3d at 815–19.
\item \textsuperscript{71} See, e.g., Mitel, 124 F.3d at 1375.
\item \textsuperscript{72} Dan L. Burk, \textit{Anticircumvention Misuse}, 50 UCLA L. REV. 1095, 1105–06 (2003).
\item \textsuperscript{73} See, e.g., Lexmark Int’l, Inc. v. Static Control Components, Inc., 387 F.3d 522, 549–50 (6th Cir. 2004); Chamberlain Group, Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1203–04 (Fed. Cir. 2004).
\item \textsuperscript{74} See, e.g., Cohen, \textit{supra} note 66, at 1108 (“Even among highly utilitarian literary works, the barriers to access created by distribution of computer programs in object code form have no analogue.”).
\item \textsuperscript{75} Rebecca Bolin, \textit{Opting Out of Spam: A Domain Level Do-Not-Spam Registry}, 24 YALE L. \\& POL’Y REV. 399, 413 (2006).
\end{itemize}
work. In fact, the technique’s initial success was based on enforcement of trademark rather than copyright law.

As for hold-up strategies, one can find structural elements common to all technological lock-outs, regardless of whether one sides with the plaintiff or with the defendant in any particular case. It is not difficult to show that in every lock-out case, the fair market value of the copyrighted program or other code is negligible in comparison to the economic interests at stake. For example, lock-out codes such as Lexmark’s 55-byte program are simple pieces of software that a competent programmer could replicate in a matter of days or even hours. With respect to the lock-out haikus, one may imagine that the most pedestrian of literary creations would serve the purpose. Surprisingly, however, elements of lock-out may also be found where the works at issue have unquestionable artistic significance, as discussed in the next section.

C. Reputational Lock-out

There is a significant body of case law involving uses of copyright law to prohibit the use of a work in association with certain forms of expression with which the plaintiff disagrees. One could name this strategy “reputational lock-out” since it seeks to protect the plaintiff’s reputation rather than the work at issue. Perhaps the most famous recent example of this fact pattern is SunTrust Bank v. Houghton Mifflin Co., in which the owners of the rights to Gone with the Wind unsuccessfully tried to enjoin publication of a parodic novel that aimed to expose and debunk the original work’s racist worldview. Another notorious example is Rogers v. Koons, in which a relatively obscure commercial photographer was granted an injunction, upheld on appeal, against

76 See Lexmark, 387 F.3d at 544 (“A poem in the abstract could be copyrightable. But that does not mean that the poem receives copyright protection when it is used in the context of a lock-out code.”).
78 Lexmark, 387 F.3d at 529–30.
79 For a review of leading cases, see Laura A. Heymann, The Trademark/Copyright Divide, 60 SMU L. REV. 55, 55–58 (2007).
80 268 F.3d 1257, 1269, 1272–74 (11th Cir. 2001).
the world-renowned sculptor Jeff Koons.\textsuperscript{81} Koons’ intent was to create a parody of commercial images, which involved replicating one of Rogers’ postcards as part of an exhibition tellingly entitled “Banality Show.”\textsuperscript{82} An earlier example of reputational lock-out is \textit{Walt Disney Productions v. Air Pirates}, in which Disney was granted a preliminary injunction, also affirmed on appeal, against the publication of a counterculture comic book representing Disney’s characters in unsavory circumstances.\textsuperscript{83} Other high-profile cases involved attempts by the estates of famous artists to control their public images closely, even decades after the authors’ deaths.\textsuperscript{84}

At first sight, reputational lock-out would not appear to be relevant to our discussion. Most of the attention in these cases has focused on issues of free speech and private censorship rather than on the plaintiffs’ business strategies. In addition, since the interest at stake is not of a strictly economic nature, comparing the market value to the intrinsic value of the work seems to create a classic apples-and-oranges problem.\textsuperscript{85}

However, a scrutiny reveals close similarities to the lock-out strategies discussed in the previous section. Where reputation is part of the brand image of a media franchise, a reputational lock-out may have a substantial economic dimension. As Professor Arewa observed in the context of artistic legacies, “[t]he strategic uses of copyright by heirs are rooted in the economic value of

\textsuperscript{81} 960 F.2d 301 (2d Cir. 1992).
\textsuperscript{82} Id. at 304, 309.
\textsuperscript{84} See, e.g., Shloss v. Sweeney, 2007 U.S. Dist. LEXIS 76910 (N.D. Cal. Feb. 9, 2007) (estate of James Joyce seeking to prevent use of James and Lucia Joyce’s writings, with the sole apparent purpose of protecting the Joyce family’s privacy); Gershwin v. Whole Thing Co., 1980 U.S. Dist. LEXIS 16465, at *9–10 (C.D. Cal. 1980) (estate of George Gershwin seeking to prevent unauthorized musical play incorporating Gershwin’s songs, with the goal of protecting the integrity of “carefully sculptured works of art”).
\textsuperscript{85} See Heymann, \textit{supra} note 79, at 58 (“[T]hese creators are not truly seeking to trade on the incentives given to them by copyright law and the economic rights that come from the limited monopoly copyright law grants.”).
streams of licensing revenues from copyright-protected works.”

Arewa discusses in detail the strategies of the Gershwin estate, which went so far as to refuse to release photographs of Ira and George Gershwin unless they were first airbrushed to remove unsightly stubble. 

Strong economic elements can be found in each of the cases discussed above. In the SunTrust opinion, the court observed that Gone with the Wind “has become one of the best-selling books in the world, second in sales only to the Bible”, and that an important component of the copyright holder’s seven-figure licensing agreements was not to authorize any other derivative works. Similarly, Disney’s action in Air Pirates was a clear example of lock-out: using copyright protection to protect its investment in building a brand associated with wholesome entertainment. Although the plaintiff in Rogers v. Koons appears to have mainly been seeking an injunction, he also demanded Koons’ considerable profits from sales of the infringing sculptures.

Even accounting for the economic value of reputation, it is more difficult to see a disparity between a work’s intrinsic value and market value in reputational lock-out than it is in technological lock-out. For example, in cases involving the estates of famous authors the works at issue are of such stature that it is difficult to see them as mere “lock-out codes.” As much as legal theorists purport to adopt a content-neutral stance toward copyright protection, it is hard to ignore the significance of certain works. One could probably argue with a straight face that the Gershwin

87 Id.
89 Id. at 1274.
90 See Walt Disney Prods. v. Air Pirates, 581 F.2d 751, 758 (9th Cir. 1978) (“[T]he essence of this parody did not focus on how the characters looked, but rather parodied their personalities, their wholesomeness and their innocence.”).
91 Rogers v. Koons, 960 F.2d 301, 306, 312 (2d Cir. 1992) (Koons’ profits totaling $367,000). In this sense, Rogers’ strategy was a mixture of lock-out and hold-up. This aspect of the case is further discussed in Part III, infra.
estate’s extravagant demands are a small price to pay in return for the world to enjoy *Rhapsody in Blue*. It is more difficult to maintain the proverbial straight face when, as was the case in *Air Pirates*, a copyrighted work transmogrifies into a brand image. The next section addresses this particular case of lock-out.

D. Brand Lock-out

Copyright protection, and in particular the exclusive right of adaptation, is extensively used to create and protect franchises based on popular entertainment. This strategy may be called “brand lock-out” since it aims at excluding others from using a commercial brand that sprung out of the original work. Brand lock-out has two main purposes: first, to exercise complete control over a brand image, and prevent others from interfering with the business strategies associated with it; second, to prevent free-riders from benefiting from the positive associations that the brand enjoys among the general public. Some examples of reputational lock-out certainly display some features of brand lock-out, for example, when copyright is used to defend the reputation of an artist and thus protect the associated licensing revenue stream. This section more specifically discusses situations where the work itself becomes the brand, as in the case of cartoon characters.

As the *Air Pirates* decision shows, cartoon and comic book characters are eminently suitable for lock-out use. Due to their highly distinctive visual image, cartoon characters do not suffer from the elusiveness of non-graphically depicted literary characters. In fact, even a stock character, which would be unprotected if represented in a purely literary form, becomes copyrightable once given a visual appearance in a comic book. Alternatively, the visual appearance of characters qualifies for protection as a pictorial work under the copyright statute.

---

94 Gaiman v. McFarlane, 360 F.3d 644, 661 (7th Cir. 2004).
Moreover, copying a character’s image alone constitutes copyright infringement, and a defendant is not entitled to a fair use defense even where the use is transformative.96

Even more than lock-out programs and lock-out haikus, lock-out characters provide the strong exclusive rights required to protect a substantial investment. Of course, media companies have taken full advantage of the strong protection provided by copyright law. In 2006, the Walt Disney Company boasted annual revenues exceeding $34 billion.97 A large part of this amount is at least closely related to Disney’s ownership of its numerous cartoon characters. About $10 billion (29%) of Disney’s revenue is associated with parks and resorts.98 One must wonder how much business Walt Disney World and Disneyland would lose if the average American family could visit Mickey in a competitor’s amusement park within driving distance from home, rather than having to fly all the way to Anaheim or Orlando. An army of 300 lawyers99 defends this empire with legendary aggressiveness.100

Ownership of the copyright in the Mickey Mouse character is one of the capstones of Disney’s legal fortress. If Congress had let the copyright on the original 1928 Mickey short, Steamboat Willie, expire in 2003, that single work would have fallen into the public domain.101 Disney was probably not too worried about low-cost copies of Steamboat Willie flooding the market.102 What must

96 See Air Pirates, 581 F.2d at 757–58 (finding that verbatim copy of comic-book characters in a parody was not fair use, where a lesser amount of copying would have been sufficient to evoke the characters in the minds of the readers).
98 Id.
102 As of October 20, 2007, the Vintage Mickey DVD featuring the Steamboat Willie short (which lasts less than 8 minutes) ranked #7,289 in Amazon.com DVD sales,
have horrified Disney’s lawyers was that the lapsing of *Steamboat Willie* into the public domain would have caused an enormous loss in sales of merchandise and services. In other words, the adaptation rights of *Steamboat Willie* are Disney’s lock-out code—the key to the magic kingdom that took the company decades (and billions of dollars) to build.

Copyright law is certainly not the only tool available to protect cartoon characters, however it is a key component of many media empires’ intellectual property strategies. For example, attempts to enforce trademark rights separately from copyright have met with mixed success. Moreover, the 2003 Supreme Court decision in *Dastar v. Twentieth Century Fox* stands for the proposition that trademark law cannot be used to extend copyright protection beyond its statutory term. If one day *Steamboat Willie* will fall in the public domain, Disney will face the concrete possibility that competitors may put Mickey’s face on their products, as long as they clearly indicate the source of the goods. For example, Nike could hypothetically launch a line of children’s sneakers branded “Air Mickey.” It is likely that two large and sophisticated companies such as Nike and Disney would settle in advance any potential disagreements, for example by negotiating royalty payments to Disney. However, the expiration of the copyright on Mickey, in light of the adverse decision in *Dastar*, would certainly weaken Disney’s bargaining position and could result in much lower royalty payments.

One could argue that there is a substantial difference between Mickey Mouse and a piece of software. How can one compare a combination of zeros and ones with the lovely mouse that virtually every human being knows and loves? Certainly, our imaginary opponent would say, there must be something “magic” in Mickey’s

---


105 See *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23, 33 (2003).
looks, some secret ingredient that explains his tremendous success. The problem with this argument is that there really seems to be nothing special about Mickey. Before 1928, Disney’s main character was a rodent named Oswald the Lucky Rabbit.\footnote{Wikipedia, Oswald the Lucky Rabbit, http://en.wikipedia.org/wiki/Oswald_the_Lucky_Rabbit (last visited Feb. 26, 2008).} Oswald was just as cute and lovely as Mickey, and just like Mickey, he was the creation of Walt Disney and his chief animator, Ub Iwerks.\footnote{Id.} Like Mickey, Oswald had a white face, a black nose, prominent black ears (elongated rather than round), and wore boxer shorts with two buttons in the front.\footnote{Id.} It is difficult to tell which one is lovelier. Yet, at some point, the studio decided to dump Oswald and focus on Mickey. Needless to say, artistic similarity does not translate into a similarity in market valuation.

Perhaps, one could argue, there really is something special about Mickey, which the superficial similarity with Oswald does not reveal. Perhaps, the reason why Mickey replaced Oswald is that Mickey’s visual appearance was uniquely and exceptionally recognizable by the public. This feature has a name—it is part of distinctiveness, and it is plays an important role in trademark law. Distinctiveness is the ability to identify a source of goods clearly in the eyes of the public, and it is a requirement for enforcement of a trademark under the Lanham Act.\footnote{See, e.g., Kendall-Jackson Winery, Ltd. v. E. & J. Gallo Winery, 150 F.3d 1042, 1047 (9th Cir. 1998).} However, there is no such thing as a distinctiveness requirement in copyright law. The “catchiness” of a visual image is a factual issue often argued in trademark lawsuits, but it has no legal significance in the copyright context.

The Oswald/Mickey example highlights a common feature of all lock-out codes. The difference between Oswald and Mickey is the same that exists between two keys: One opens my front door, the other does not, but they are otherwise identical. Professor
Cohen made a similar point with respect to lock-out strategies based on patent protection: A lock-out device has no distinguishing features over the prior art other than its particular, unique protection algorithm, which is not patentable unless it is inventive in itself.\(^{110}\)

Now, it is possible to prove that the intrinsic value of a cartoon character used as a lock-out code is far less than its market value. Since Mickey’s demand curves are distorted by Disney’s brand-building efforts, one may rely on the “shortcut” discussed at the end of Part I. The reasoning goes as follows: consider two works of comparable artistic value, such as Oswald and Mickey. One must take it as self-evident that the total economic or social welfare associated with the works as such (i.e., their intrinsic value) cannot be too different. It stretches credulity to argue that a hypothetical consumer who has not been exposed to 80 years of Disney marketing will love Mickey and hate Oswald, or vice versa. For the sake of simplicity, let’s posit that the intrinsic value of both Oswald and Mickey is X. Mickey is the key to Disney’s vault, which contains a very large amount of money—let’s call that Y.\(^{111}\) Nobody could dispute that Oswald’s intrinsic value, X, is far less than Y—as enjoyable as they are, cute characters like Oswald are a dime a dozen. However, Mickey’s intrinsic value is the same as Oswald’s, i.e., X. Ergo, Mickey is a lock-out code, because its market price, Y, far exceeds its intrinsic value, X. QED.

The above “proof” is based on an intuition and should not be taken too literally. The point is that there may be a big discrepancy between what a copyrighted work is really worth and what people are willing to pay for it. Of course, the source of the discrepancy originates in external factors, such as marketing and promotion of the brand. The same is true for many other examples of strategic

\(^{110}\) See Cohen, supra note 66, at 1174–75.

\(^{111}\) As of November 6, 2007, Disney’s market capitalization was around $65 billion. Whatever the fraction of this figure is attributable to Mickey, it’s likely in the billion-dollar range. For an analysis of the effect of changes in copyright law on the valuation of public companies, see Matthew J. Baker & Brendan M. Cunningham, Court Decisions and Equity Markets: Estimating the Value of Copyright Protection, 49 J.L. & ECON. 567, 569–70 (2006).
uses of copyright. The next section attempts to tie all those examples together.

III. A UNIFIED PICTURE OF HOLD-UP AND LOCK-OUT STRATEGIES

Both hold-up and lock-out strategies involve the use of a copyrighted work as the key to a vault that contains the fruits of someone’s effort or investment. In *Perfect 10* (hold-up), the investment at stake was Google’s effort spent in creating its search algorithms and conquering market share. In *Lexmark* (technology lock-out), it was the printer manufacturer’s initial investment in research and development, and also the loss incurred in selling printers at a low cost in the expectation of profiting from sales of toner cartridges. In *Air Pirates* (brand lock-out), it was Disney’s marketing and brand-building work. The only difference between hold-up and lock-out, then, is whose money is at stake—the plaintiff’s or the defendant’s.

Even more interestingly, there are situations in which both sides contribute money to the vault. In fact, the ability of a plaintiff or a defendant to tell a good story to a judge or jury may depend on their being able to claim a credible right to the fruits of their past efforts. Sometimes elements of hold-up may be incidental to a lock-out strategy, and vice versa. In *Rogers v. Koons* (reputational lock-out), the plaintiff’s expression was certainly harmed from being portrayed (or, rather, sculpted) as a prime example of “Banality” and as a contributing factor to the “deterioration in the quality of society.” This would suggest a lock-out pattern. At the same time, Koons put great efforts into creating the infringing sculptures, for example commissioning custom porcelain and woodcarving jobs from specialized European firms. Koons also made a substantial amount of money from sales of the sculptures, the money which Rogers sought to

112 *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007).
114 *Walt Disney Prods. v. Air Pirates*, 581 F.2d 751 (9th Cir. 1978).
116 *Id.* at 304–05.
These facts suggest that Rogers’ strategy had some elements of hold-up, not in the sense of threatening an injunction, but more generally as targeting the defendant’s assets. Understandably, the appellate court affirming the injunction emphasized the plaintiff’s artistic reputation (i.e., his lock-out posture) while depicting the defendant as a “controversial artist” whose art some find “truly offensive” (i.e., downplaying the hold-up-like element).

Finally, there may be truly hybrid situations where a plaintiff seeks to protect her investment while simultaneously capturing that of a competitor. It has been suggested that the record companies’ and film studios’ aggressive enforcement of their rights often has the ultimate purpose of blocking potentially disruptive new technologies. For example, a new entrant in the market for the digital distribution of music necessarily needs access to existing materials owned by traditional record companies, which have every incentive to refuse a license in order to protect their sales of old-fashioned media. On the one hand, the record companies want to protect their own past investment; on the other hand, their long-term goal may be to eventually grab a new market that someone else pioneered at great expense.

The strategic analysis of a copyright dispute requires asking two questions. First, to what extent is the use strategic? It is important to note that the “vault” of our metaphor only contains the difference between market price and intrinsic value of the copyrighted work. If the work is objectively valuable, and the

117 Id. at 306, 312–13.
118 Traditional hold-up strategies rely on property rules (threat of an injunction), whereas Rogers’ claim against Koons’ assets was based on a liability rule (demand for money damages). However the distinction blurs where, as in that case, the law forces a defendant to disgorge the entirety of his gains from the infringing activities. The liability rule then results in the highest payment that a rational defendant would make to settle the plaintiff’s claim.
119 See Rogers, 960 F.2d at 303–04.
transfer of rights involves payment of a price comparable to the value of the work, there is no strategic use of the work. In the context of our metaphor, the “key” is made of solid gold and encrusted with ten-carat diamonds. This of course is the story that a hold-up or lock-out plaintiff will try to tell the judge or the jury. “Mickey is magic” sounds a lot better than “we spent decades growing this silly cartoon character into a major media franchise and we are entitled to a perpetual revenue stream.” The second question is, whose interest is at stake? In a “perfect” hold-up situation the plaintiff finds herself owning the key to the defendant’s vault. In a “perfect” lock-out scenario the plaintiff accuses the defendant of stealing the key to her own vault. Intermediate cases lie somewhere in between. If there is a clear and undeniable strategic component to the suit, the plaintiff would rather tell a lock-out story than a hold-up story.

The two questions just discussed form the basis for a visual representation that may help understanding the parties’ postures in any copyright dispute. This can be done with a bit of math, without any pretense of developing a rigorous quantitative analysis of the problem. The starting point is the intrinsic value of the work, which one assumes is a knowable quantity (with the caveats discussed in Part I). The work’s value is indicated with the symbol $V$. $V_B$ is the value added by the plaintiff (apart from the value of the work itself), and $V_D$ the value added by the defendant. These added values will also include any return on the initial investment made—in short, they represent what the plaintiff and the defendant are entitled to by reason of their efforts. The total sum at stake is then:

$$S = V + V_B + V_D$$

One can now define a “hold-up index” $X$, equal to the ratio of the defendant’s added value to the total amount at stake:

$$X = \frac{V_D}{S} = \frac{V_D}{V + V_B + V_D}$$

Values of $X$ run from zero (pure lock-out, $V_D = 0$) to one (pure hold-up, $V_D = S$). Hybrid cases, of course, fall somewhere in between. For example, if plaintiff and defendant contribute equal investments, and $V$ is negligible, $X$ is equal to 0.5.
The variable X identifies the situation as a hold-up or a lock-out, assuming that the plaintiff is already making strategic use of copyright law. One can add another variable that distinguishes strategic from non-strategic situations if one complicates things a bit. A “strategic index” Y may be defined as the ratio of the plaintiff’s and defendant’s added values to the total amount at stake:

\[ Y = \frac{V_B + V_D}{S} \]

Since \( V_B + V_D = S - V \), the expression for Y may be rewritten in a more convenient form:

\[ Y = \frac{S - V}{S} = 1 - \frac{V}{S} \]

Just like X, the parameter Y can take any value from zero (no strategic dimension, \( V = S \)) to one (\( V = 0 \), meaning that the work at issue is in itself worthless).

The space defined by the parameters X and Y may now be represented in graphical form. A “strategic space” may be defined as the square area encompassing all possible values of X and Y ranging between zero and one.

In terms of litigation strategy, a plaintiff will typically argue that her strategic index is zero (i.e., she owns a “golden key”). As a fallback argument, she will try to show that her hold-up index is zero (i.e., she put a lot of effort into developing the work). Vice versa, a defendant will seek to prove that the plaintiff’s strategic index is close to one (i.e., the work at issue is in itself worthless) and that the hold-up index is also close to one (i.e., the plaintiff is using copyright law to benefit from the defendant’s hard work). However, even if the plaintiff wins on the X front, she may lose for the mere fact that her Y-value is high, if the defendant can convince the judge or jury that the plaintiff’s lock-out strategy is unfair or anti-competitive. The following diagram shows the strategic space and the parties’ preferred locations in that space:
The diagram also shows where four of the cases discussed above could be tentatively positioned based on what is known about the facts of each case. *Lexmark* is a pure lock-out case since the copyrighted work is merely an access code ($V = 0$), and the interest at stake is entirely represented by the plaintiff's business interest or added value ($V_D = 0, S = V_B$). Accordingly, *Lexmark* ends up on the top left corner of the diagram ($X = 0, Y = 1$). *Perfect 10* seems to be a pure hold-up case, since both the value of the low-resolution pictures and the value added by *Perfect 10* are probably small as compared to Google’s potential loss ($V = V_B = 0, S = V_D$). Therefore it is placed at the top right corner of the diagram ($X = Y = 1$). *SunTrust* is only partially strategic, as the original work, though it may be criticized on political grounds, is certainly appreciated by many people. However the work has also been heavily developed, therefore the plaintiff contributed a non-negligible value, probably much higher than the defendant did. Accordingly, one can neglect $V_D$ and position this case on the left side of the diagram ($X = 0, Y$ somewhere between 0 and 1). Finally, *Rogers* is a true hybrid case, as none of the three quantities in play ($V$, $V_B$ and $V_D$) seems to be entirely negligible. This case must be located somewhere in the middle of the diagram, as neither $X$ or $Y$ seems to be very close to zero or one.

Having discussed the close similarities between hold-up and lock-out strategies, one wonders whether it makes any sense to approve one and condemn the other. In quantitative terms, can one
draw a vertical line on the strategic space separating “good” from “bad” strategies? Courts have relied on all sorts of ad-hoc doctrines to deal with strategic litigations, while generally ignoring their common characteristics. This issue is explored in the next section. What is interesting to note at this point is that, while completely different criticisms have been leveled at both hold-up and lock-out strategies, the proposed solutions could work in both situations. For example, it has been suggested that the problem of hold-up could be addressed by replacing property rules with liability rules.121 The same approach could be just as effective in the lock-out context, by allowing use of lock-out codes in exchange for a reasonable royalty.

IV. DO STRATEGIC USES EXCEED THE BOUNDARIES OF COPYRIGHT LAW?

A. Copyright Law as “Mutant Trademark Law”

Strategic uses of copyright law display a close similarity to trademark protection. One of the goals of trademark law is to protect the information capital embodied in a mark.122 Like a trademark, a copyrighted work used strategically has a relatively small intrinsic value, but may protect a substantial capital. For example, the copyright in a lock-out code operates to protect not the code as such, but the investment associated with that code. Also, like the value of a trademark, the market value of a lock-out code rises as its owner invests in the underlying business, and likewise the “extortion value” of a work used in a hold-up strategy increases as the defendant’s business grows.

Courts have recognized to some extent the trademark-like nature of lock-out strategies. In its opinion in Gershwin v. Whole Thing Co., one of the cases involving the Gershwin estate, the court aptly wrote:

Mr. Gershwin will suffer irreparable injury because of the kind of intangible property he is seeking to

121 See Lemley & Weiser, supra note 31, at 784–85.
122 See Landes & Posner, supra note 3, at 168.
For each of their musical plays, the Gershwins were creating a work of art, a sculpture of music and lyrics. Over the years, each of the Gershwin sculptures has acquired substantial goodwill and Mr. Gershwin has always sought to preserve the goodwill associated with the Gershwin compositions.123

Such emphasis on protection of goodwill raises a red flag—black letter law dictates that it is trademark law, not copyright law that protects goodwill.124 The Copyright Act and the Lanham Act protect different interests and create independent, if occasionally overlapping, legal protections.125

While the analogy between trademark protection and lock-out strategies is relatively straightforward, most hold-up fact patterns can also be analogized to trademark disputes. First, all hold-up cases involving a fair use defense can be analogized to fights over ownership or validity of a mark: The defendant argues that she, as a member of the public, “owns” those aspects of a work that properly belong in the public domain. Second, a lock-out strategy can turn into a hold-up, and vice versa. Air Pirates, for example, was a clear lock-out situation. However, if defendants had succeeded in showing fair use, they would have found themselves in a hold-up position, as Disney would probably have paid them much more than they would possibly have made by sales of an “underground” comic book.126 Finally, even where it takes some imagination to see the analogy to trademark protection, one can point to the structural similarity to the underlying operation of

---

124 See, e.g., Park ‘N Fly, Inc. v. Dollar Park and Fly, Inc., 469 U.S. 189, 190 (1985) (one of the Lanham Act’s goals is “providing national protection of trademarks in order to secure to the mark’s owner the goodwill of his business”).
125 See, e.g., Waldman Pub. Corp. v. Landoll, Inc., 43 F.3d 775, 781 (2d Cir. 1994) (discussing the policies of the two statutes and recognizing a cause of action for “reverse passing off” of plaintiff’s book as separate from copyright infringement).
126 A total of 40,000 copies of the infringing works were sold. See Walt Disney Prods. v. Air Pirates, 581 F.2d 751, 753 n.6 (9th Cir. 1978). Of course if defendants had triumphed over Disney the resulting celebrity effect would have multiplied the commercial value of their work. Also, whether defendants would have accepted Disney’s money is something one will never know.
trademark law, which allows an intellectual property owner exclusive rights over a cipher that has no meaning or value in itself, except as a single bit of information that is critically connected to its owner’s business.

The similarity between a copyright action with a high “strategic index” and a trademark action begs the question of whether copyright law is the right tool to achieve the plaintiff’s goals. There are several reasons why this may not be the case. First of all, at least some strategic uses of copyright law might exceed the boundaries of the constitutional mandate. American intellectual property law, as embodied in the Patent and Copyright Clause of the United States Constitution, seeks to avoid the grant of arbitrary monopolies to the detriment of the public. This concept is embodied in the constitutional requirement that copyright law “promote . . . Progress.” The Supreme Court has recognized that, while Congress has wide latitude to select the appropriate protection scheme, it is nevertheless bound by the constitutional mandate. As an example highly pertinent to this discussion, the Supreme Court ruled almost 130 years ago that Congress does not have power to protect common trademarks under the Patent and Copyright Clause of the Constitution, because “[t]he ordinary trade-mark has no necessary relation to invention or discovery”, and because “[t]he writings which are to be protected are the fruits of intellectual labor, embodied in the form of books, prints, engravings, and the like.”

One can certainly argue, as the court in Gershwin implicitly did, that protection of the goodwill associated with the work is one of the mechanisms through which copyright law fulfills its constitutional mandate of “promot[ing] . . . Progress.” As

128 U.S. Const. art. I, § 8, cl. 8.
129 See Eldred v. Ashcroft, 537 U.S. 186, 208 (2003) (“[W]e are not at liberty to second-guess congressional determinations and policy judgments [with respect to extensions of the copyright term,] however debatable or arguably unwise they may be.”).
130 Graham, 383 U.S. at 5–6.
131 In re Trade-Mark Cases, 100 U.S. 82, 94 (1879) (emphasis in original).
132 See, e.g., Melville B. Nimmer & David Nimmer, 1-2 Nimmer on Copyright § 2.16 (2007) (a well-known title may be the only valuable element of a copyrighted work which is itself based upon public domain materials) [hereinafter Nimmer on Copyright].
discussed in Part I, the beneficial effects of copyright protection extend far beyond the direct impact on the creation of new works, for example by supporting a democratic civil society. As Professor Frischmann has acknowledged, “it is difficult, if not impossible, to identify the point at which copyright has gone too far.” On the other hand, a point of diminishing returns must exist, as internalization carries its own inefficiencies, and at some point, the costs of internalization begin to exceed its benefits.

Even assuming that strategic uses of copyright are generally constitutional, some could be barred by the “principle of election” under which forms of intellectual property protection may be mutually exclusive. While the Copyright Act expressly allows other federal statutes, such as the Lanham Act, to provide overlapping protection, the reverse is not necessarily true. Nothing in the statute expressly allows copyright law to reach areas of protection under other intellectual property regimes, and other federal law could be interpreted as curtailing a copyright owner’s rights. Although the general applicability of the principle of election has been challenged, its influence can be found throughout intellectual property law. As mentioned above, *Dastar* prevents trademark law from overreaching into the domain of copyright. At least one lower court has already extrapolated the reasoning in *Dastar* to similarly prevent the Digital Millennium Copyright Act from turning into “a species of mutant Frischmann, *supra* note 5, at 668 (“The supply side incentives that copyright affects extend beyond the initial investment in creation to investments in development and dissemination of content.”).


134 Frischmann, *supra* note 5, at 662.


136 17 U.S.C. § 301(d) (2006) (“Nothing in this title annuls or limits any rights or remedies under any other Federal statute.”); see also 1-1 *NIMMER ON COPYRIGHT, supra* note 132, § 1.01[D][1].

137 1-1 *NIMMER ON COPYRIGHT, supra* note 132, § 1.01[D][1].

138 See Application of Yardley, 493 F.2d 1389 (C.C.P.A. 1974) (rejecting patent examiner’s argument that prior copyright registration estopped applicant from obtaining a design patent).
trademark/copyright law, blurring the boundaries between the law of trademarks and that of copyright.\textsuperscript{139}

The strength of copyright protection under the current legal regime threatens to make trademark law redundant. To paraphrase Justice Scalia in \textit{Dastar v. Twentieth Century Fox}, is it right for copyright law to become a sort of “mutant trademark law?”\textsuperscript{140} If it is, why bother having a trademark law at all? Most graphical trademarks such as corporate logos certainly also qualify for copyright protection as pictorial works, since they pass the very low creativity threshold set by the Supreme Court in \textit{Feist}.\textsuperscript{141} A lock-out copyright may offer stronger protection than a trademark. For example, since the Constitution allows Congress to keep extending the copyright term indefinitely,\textsuperscript{142} copyright protection might even outlast a trademark, which can become abandoned.\textsuperscript{143}

Moreover, reliance on copyright law to achieve the same effects as trademark protection runs exactly contrary to both established practices and recent trends in the media economy. The Clorox Company has long benefited from trademark protection to apply supracompetitive prices for bleach, a generic household chemical with no proprietary qualities. Likewise, Johnson & Johnson prices Listerine above its generic substitutes, many decades after the once-secret formula has become widely known.\textsuperscript{144} A firm does not even need full trademark protection to enjoy the benefits of a strong brand—Bayer charges a premium price for its Aspirin long after the mark “Aspirin” itself has been

\textsuperscript{139} The IQ Group, Ltd. v. Wiesner Publ’g, LLC, 409 F. Supp. 2d 587, 592 (D.N.J. 2006).

\textsuperscript{140} \textit{See Dastar Corp. v. Twentieth Century Fox Film Corp.}, 539 U.S. 23, 34 (2003) ("[A]llowing a cause of action under § 43(a) . . . would create a species of mutant copyright law . . . .").


\textsuperscript{142} \textit{Eldred v. Ashcroft}, 537 U.S. 186 (2003).

\textsuperscript{143} 15 U.S.C. § 1127 (“A mark shall be deemed to be ‘abandoned’ . . . [w]hen any course of conduct of the owner, including acts of omission as well as commission, causes the mark to become the generic name for the goods or services on or in connection with which it is used or otherwise to lose its significance as a mark.”).

found generic.\textsuperscript{145} In recent years, even industries traditionally relying on strong copyright protection have moved toward alternative forms of protection for their investment. For example, the software company Red Hat protects its business interests through trademark law, instead of copyright law, by selling consulting and services centered on a product (the Linux operating system) that is essentially free.\textsuperscript{146} Similarly, artists with strong celebrity appeal and broad following are exploring ways to extract revenue from their image (e.g., through sales of concert tickets and merchandise) rather than from licensing the copyright on their works.\textsuperscript{147}

Professors Parchomowsky and Siegelman have suggested that a welfare-enhancing synergy exists between copyright and trademark protection.\textsuperscript{148} They argue that in some cases trademark law may extend the effective term of protection under copyright and patent law, and the rational intellectual property owner will seek to maximize her profits over this entire extended term.\textsuperscript{149} In order to do so, she will demand lower prices during the statutory patent or copyright protection term, in order to enhance her brand image and extract higher revenue during the extended term under trademark law.\textsuperscript{150} One could imagine that the same synergy would apply where trademark and copyright merge. However, as Parchomowsky and Siegelman observe, “copyright protection is so long as to render the additional protection term afforded by trademark law virtually meaningless.”\textsuperscript{151} Even more importantly, strategic uses of copyright law do not supplement trademark law, but virtually replace it. The welfare-enhancing effect advocated by Parchomowsky and Siegelman never materializes, because a

\textsuperscript{145} See Bayer Co. v. United Drug Co., 272 F. 505 (S.D.N.Y. 1921) (finding mark “Aspirin” to have become generic).
\textsuperscript{146} See, e.g., David McGowan, Between Logic and Experience: Error Costs and United States v. Microsoft Corp., 20 BERKELEY TECH. L.J. 1185, 1238.
\textsuperscript{149} Id. at 1462–63.
\textsuperscript{150} Id.
\textsuperscript{151} Id. at 1499.
copyright holder enjoys practically perpetual rights. In other words, since nobody ever gets to sell the “Air Mickey” sneakers, Disney does not have to lower prices during the period of exclusivity in order to secure brand loyalty for purposes of trademark protection.

B. Copyright Misuse

In addition to being in tension with legal standards, strategic uses of copyright protection may be attacked on equitable grounds through the doctrine of copyright misuse. Copyright misuse is an equitable defense to a claim of copyright infringement, historically related to the doctrine of “unclean hands.” It prevents a plaintiff from coming to a court of equity to seek an injunction if she has abused her rights as a copyright holder. Thus, the doctrine of copyright misuse seeks to extend the traditional role of a court as a “balancer of equities” to safeguard the fundamental public policies underlying the statutory scheme. These policies include the protection of competition in the marketplace and the safeguarding of free speech. In fact, most of the leading decisions applied the doctrine against licensing agreements that included anti-competitive clauses. A few opinions discussed, without deciding, the application of copyright

---

152 Cf. id. at 1463 (suggesting that at the expiration of the copyright or patent term, new market entrants will lower market prices to marginal cost).


154 Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772, 792 (5th Cir. 1999).

155 Id.

156 Frischmann & Moylan, Software Copyright Misuse, supra note 153, at 877.


158 See, e.g., Practice Mgmt. Info. Corp. v. Am. Med. Ass’n, 121 F.3d 516 (9th Cir. 1997) (licensing agreement for a medical manual prohibiting the licensee from using competing coding systems for medical procedures); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970 (4th Cir. 1990) (software licensing agreement prohibiting the licensee from developing or selling competing software).
misuse to protect the free speech rights of a licensee\textsuperscript{159} or to prevent abuse of process by a licensor.\textsuperscript{160}

At first sight, copyright misuse would appear to be the ideal tool to preempt strategic uses of copyright protection. By definition, hold-up and lock-out strategies seek to protect interests unrelated to the work whose copyright is being enforced. Professor Heymann has suggested that copyright claims should be dismissed under the doctrine of copyright misuse where a plaintiff seeks to protect her reputational, rather than economic, interests.\textsuperscript{161} Those interests could be adequately protected by narrower, trademark-like remedies.\textsuperscript{162} With few exceptions, the interests at stake in lock-out and hold-up situations are most often of an economic sort, so Heymann’s theory does not strictly apply to the general problem of strategic copyright lawsuits. However, her reasoning should apply to situations where the creator of a work is not “seeking to control the use of the work qua work.”\textsuperscript{163} This would include not only reputational lock-out, but also other types of lock-out, as well as hold-up situations.

Structurally, application of the copyright misuse defense to strategic copyright enforcement requires some careful adjustments. Misuse is triggered by the copyright holder’s use of her rights in a manner contrary to public policy, and renders a copyright unenforceable even against defendants who were not parties to the original inequitable transaction.\textsuperscript{164} Conceptually, there is a two-step process: (1) an inequitable act, which (2) operates to bar subsequent equitable relief. In some cases, the two steps have a common origin, for example, infringement may arise from a

\textsuperscript{159} Video Pipeline, Inc. v. Buena Vista Home Entm’t, Inc., 342 F.3d 191, 203–06 (3d Cir. 2003) (recognizing the patent misuse defense as a safeguard of free speech rights, but declining to apply the doctrine to bar enforcement of a copyright license prohibiting the licensee from displaying the work in a form that was derogatory to or critical of the licensor).

\textsuperscript{160} Assessment Techs. of Wis., L.L.C. v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003) (discussing, without deciding, the applicability of the misuse defense where a copyright owner uses an infringement suit to effectively gain rights not granted under copyright law).

\textsuperscript{161} Heymann, \textit{supra} note 79, at 90–95.

\textsuperscript{162} Id. at 95–99.

\textsuperscript{163} Id. at 57.

\textsuperscript{164} Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 979 (4th Cir. 1990).
breach of the very licensing agreement that includes inequitable clauses. However even in those cases, the two steps, abuse of rights and subsequent bar to enforcement, remain separate. In the case of a strategic use of copyright, however, there is only one event—the enforcement of rights, which should act as a bar to itself. Support for this reasoning can be found in the “abuse of process” variant of copyright misuse, in which inequitable conduct and copyright enforcement constitute a single act.165

A substantive problem with the application of copyright misuse is that it would require an extension of existing case law. Courts have so far considered application of copyright misuse to protect competition, free speech, and the judicial process. All of those policies act as external boundaries to the property rights of a copyright owner, and as such, they would be equally applicable to other intellectual property rights. Some strategic uses of copyright protection may also include external considerations—for example, technological lock-out could have anticompetitive dimensions.166 However, a general extension of the misuse defense to strategic uses of copyright protection would require the recognition of boundaries that are internal to copyright law. For example, use of copyright law to implement a brand lock-out strategy is not likely to threaten competition, because others are free to develop their own franchises; it cannot harm free speech more than ordinary copyright enforcement, because copyright law already includes “built-in First Amendment accommodations” in the form of the fair use doctrine and the idea/expression distinction;167 and finally it cannot involve an abuse of process, because the copyright owner seeks to enforce her exclusive adaptation rights which are expressly granted by the copyright statute.168 Raising a misuse defense against a brand lock-out copyright infringement suit would

165 Assessment Techs., 350 F.3d at 647.
166 See, e.g., Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772 (5th Cir. 1999) (applying the copyright misuse doctrine to a software license prohibiting the licensee from using the software only in conjunction with the licensor’s hardware).
167 See Eldred v. Ashcroft, 537 U.S. 186, 190 (2003); see also Video Pipeline, Inc. v. Buena Vista Home Entm’t, Inc., 342 F.3d 191, 206 (3d Cir. 2003) (declining to apply the misuse defense where fair use protects free speech rights).
168 17 U.S.C. § 106 (2006) (“the owner of copyright under this title has the exclusive rights to . . . prepare derivative works based upon the copyrighted work”).
require arguing that the plaintiff is exceeding the proper scope of copyright, not that she is bumping against some other overarching policy. While this would represent a significant departure from existing precedent, it must be remembered that the doctrine of copyright misuse is less than twenty years old and “far from well-established.”

Overall, the legal and equitable arguments against strategic uses of copyright protection are likely to stand or fall together. The historical purpose of equitable jurisdiction was to grant ad-hoc relief in exceptional cases, when strict application of the common law would have resulted in an injustice. However, a copyright misuse defense is available only to the extent that a copyright owner exceeds the internal boundaries of the statutory grant. This is determined by the same subject-matter-specific considerations that drive the interpretation and application of the copyright statute, and not by independent, generally applicable equitable criteria. In other words, legal principles are injected into equitable decision-making. In this respect, copyright misuse is merely an equitable vehicle for enforcing, or rather “reinforcing,” legal doctrines.

CONCLUSION

This Note has argued that lock-out and hold-up strategies are really two sides of the same coin, i.e., the use of copyright law to protect not a work as such, but an underlying economic investment. This Note also reviewed some reasons why such strategies may be inappropriate under the traditional copyright paradigm. None of

169 Frischmann & Moylan, Software Copyright Misuse, supra note 153, at 869.
172 See Frischmann & Moylan, supra note 153, at 10, 23 (arguing that courts apply copyright misuse to “reinforce” existing scope and subject matter limitations, such as the idea-expression doctrine).
these arguments is airtight, and an advocate of the current system can always justify the status quo in view of established precedent and long-standing custom of the media industry. However, regardless of the doctrinal subtleties, one should at a minimum be able to make a case for restoring transparency to the political process. Whenever a major revision of the federal copyright statute is considered, Congress holds extensive policy debates, including testimony by high-profile law professors, artists, and media executives. Underlying these debates is the “official story” of copyright protection as a mechanism to promote creativity, or to reward deserving authors, and not as a tool for implementing business strategies. For example, we noted above that the Copyright Term Extension Act of 1998, tellingly nicknamed the “Mickey Mouse Protection Act,” had the effect of extending some of Disney’s most valuable strategic copyrights. However the main policy documents recording the debate, including the dissenters’ views, never mention such effect. One may argue that strategic uses are tacitly taken into account during those debates—after all, industry lobbyists must be working in close cooperation with their legal departments. However, one wonders to what extent pursuing a “hidden agenda” serves the goals of democracy. Openness would not necessarily work against the proponents of strong copyright protection. In fact, given Congress’s readiness to accept whatever arguments are put forward by special interest groups, pointing out the strategic role of certain copyrights might even favor stronger rights. For example,

174 See id. at 1244–46 (describing the discrepancy between the public-interest rhetoric advanced in support of legislation and the reality that such legislation is the result of direct negotiations between special interest groups at the expense of the public).
175 Lawrence Lessig, Copyright’s First Amendment, 48 UCLA L. Rev. 1057, 1065 (2001).
177 See, e.g., William Patry, The Failure of the American Copyright System: Protecting the Idle Rich, 72 Notre Dame L. Rev. 907, 923–32 (1996) (showing the weakness of each of the arguments supporting the Copyright Term Extension Act, which Congress eventually enacted).
a long copyright term could be defended on the ground that it is functional to the branding strategies of major corporations, rather than being simply a windfall or welfare grant to the heirs or assignees of long-dead authors. 178 Most importantly, to openly acknowledge the fact that strategic uses of copyright protection are an important part of many modern business models would go a long way toward achieving that “delicate balance” that many acknowledge is not achieved by today’s intellectual property laws. 179

178 See, e.g., id. at 928, 932–33; Karjala, supra note 176, at 25.