

# 1610

## COPYRIGHT

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### Abstract

Copyright is the branch of Intellectual Property Law that governs works of expression such as books, paintings and songs, and the expressive aspects of computer programs. Intellectual products such as these have a partially public goods character: they are largely inexhaustible and nonexcludable. Intellectual Property Law responds to inexcludability by giving producers legal rights to exclude nonpayers from certain usages of their intellectual products. The goal is to provide incentives for new production at fairly low transaction costs. However, the copyright owner will charge a price above marginal cost and this, coupled with the inexhaustibility of most copyrighted products, creates deadweight loss. Various copyright doctrines (such as the idea/expression dichotomy, the limited duration of the copyright ownership term and the doctrine of 'fair use') work to reduce deadweight loss and other costs within a larger structure that creates incentives. Copyright Law, unlike Patent Law, gives owners rights only against those who actually copy the work. This limitation, too, may serve to reduce both transaction costs and deadweight loss. Empirically it is unclear how successful copyright has been in creating incentives for production, reducing transaction costs and keeping deadweight costs low.

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### 1. Introduction

Copyright law protects works of creative expression. At its relatively uncontroversial core lie songs, plays, novels, paintings and other works of aesthetic value. But copyright is not confined solely to aesthetic subject matter;

in many countries, it extends to works of fact, such as maps and directories and to works with practical value. For example, one of the most controversial issues in copyright law today is whether and to what extent copyright should protect data bases and computer programs.

The most distinctive feature of copyright law is its focus on actual copying: a person infringes a copyright only if he actually copies the protected work. This means that independent creation of an identical work does not constitute infringement. In fact, a person who happens to create the same work independently can claim a copyright in that work separate from the original creator's. In this respect, copyright differs from patent, which prohibits independent replication as well as actual copying.

Most copyright systems share a second important feature: the rights they confer terminate after some fixed period of years (the precise period varies from country to country). For example, the current United States copyright law sets the basic period at author's life plus seventy years. Upon expiration of this period, anyone can copy the work without the author's consent. It is worth noting that not all forms of intellectual property are limited in this way. For example, trade secret and trademark rights can last indefinitely.

Most copyright systems are limited in another way. They do not prohibit all uses of a protected work, but only certain, specifically defined uses. For example, United States copyright law bars only reproduction in tangible copies, adaptation and certain alterations, public distribution, public performance and public display (Title 17 of United States Code (U.S.C.), sections 106 and 106A). Moreover, there are exceptions within each of these categories that further limit the copyright owner's control 17 U.S.C., sections 107-121.

Thus, for example, a person who recites someone else's copyrighted speech or poem to a small group in the privacy of her own home is free to do so, as long as the speaker does not make a tape recording or other tangible embodiment of the recitation. Although the protected speech or poem is in some sense copied as it is recited, under the statute the recitation counts not as a 'copy' but only as a 'performance' - 17 U.S.C. section 101 - and United States copyright law prohibits only *public* performances (17 U.S.C. section 106).

The following discussion reviews the economic literature on copyright. Economists justify copyright as they do patent law, as a way to overcome the public-goods/free-rider obstacle to information production and distribution and to facilitate efficient market transactions that transfer information to its highest valued use. In this context, 'information' is used as a shorthand category for all products of the mind. Different intellectual property doctrines provide exclusivity over different products. The special province of copyright is protecting 'expression', that is, the *form* that an author gives to her ideas.

Although we focus here on the economic rationale, it is worth mentioning at the outset that economics is not the only way to justify copyright and it

limits. For instance, some have argued that copyright serves fairness values - by giving authors their just deserts, by respecting the author's natural right to control his creation, by putting ideas in the public domain, by protecting the personhood connection between author and creation, or by preventing the unjust enrichment associated with free riding (Becker, 1993; Gordon, 1993). Still others rely on what they see as 'communitarian values', such as the importance of free expression to a liberal democracy (Fisher, 1988; Netanel, 1996).

In some countries, noneconomic values such as these play an important and explicit role alongside economics in supporting artist's rights. French law, for example, has long recognized the doctrine of moral rights (*droit moral*), generally thought to serve the values of dignity and personhood and United States copyright law recently adopted the same idea, though in a much more limited form.

The copyright literature is too voluminous to cover exhaustively in a brief review. Indeed, work on copyright has expanded rapidly in recent decades, due in part to the growing economic importance of copyright-related industries. Empirical studies conducted in a number of countries spanning selected periods from 1970 to the mid-1980s show that the copyright sector played a substantial role in overall economic development, contributing between 2.1 and 6.6 percent of the Gross Domestic or Gross National Product (Hummel, 1990, pp. 18-19). Moreover, time-longitudinal data show a rate of growth outpacing the rest of the economy (Hummel, 1990, p. 21).

Thus, the coverage in this brief review must be limited and this means that we cannot discuss all the important contributions to the field. Most of the more significant economically-oriented contributions are included in the accompanying bibliography.

## A. The Basic Economic Argument

### 2. Background

#### 2.1 *Information as a Quasi-Public Good*

The economic argument for copyright is based on the idea that works of authorship are quasi-public goods plagued with the usual free-rider and monopoly problems associated with nonexcludability and inexhaustibility. While this argument is standard in the literature today, it was not common before 1970. The few early articles that did adopt the economic approach are considered classics today. These include Plant (1934), which questions the need for broad copyright in books and Hurt and Schuchman (1966), which discusses publishing as well as copyright more generally (see also Plant, 1953).

Starting in the 1970s, economists began to focus on copyright issues with some regularity. See, for example, Besen, Manning and Mitchell (1978), Novos and Waldman (1984), Johnson (1985), Liebowitz (1985, 1986, 1987) and Landes and Posner (1989). By then, much of the basic work on public goods and information economics had been completed. For example, Samuelson published his classic article on public goods in 1954, and Arrow published his important work on the private supply of public goods in 1962 (see also Davis and Whinston, 1967; Thompson, 1968; Demsetz, 1969, 1970). The same is true of information economics, which can trace its rise to critical publications in the 1960s (see, for example, Stigler, 1961; Arrow, 1962).

The year 1970 also marks the publication of Breyer (1970), one of the earliest and most influential (at least in the United States) economic treatments of copyright in the legal literature (see also Tyerman, 1971; Breyer, 1972). An economic analysis of fair use law was published a decade later (Gordon, 1982) and since then the use of economics by legal academics writing about copyright has become quite common (see, for example, Menell, 1987; Fisher, 1988).

Perhaps the most comprehensive economic treatment of copyright to date is Landes and Posner (1989), which constructs a formal model and uses it to explain several features of United States copyright law. This effort is distinctive for its broad scope: Landes and Posner offer their model as a systematic account of the entire copyright scheme.

### 3. Benefits of Copyright

#### 3.1 Overcoming Nonexcludability

Once a work is made public, the author cannot easily exclude others from copying. Copiers have an advantage in the market because they avoid creation costs and thus can sell at a price the author cannot match without suffering a loss. Prospective authors anticipating this outcome will hesitate before investing in creative activity and creative products may be undersupplied.

More specifically, if copiers are numerous enough, competition will force the price of copies down to the copier's marginal cost. So long as copying is less costly than creating, the resulting market price will be less than the price the original author must charge to recoup her fixed costs of creation (including opportunity and risk-bearing costs). Therefore, insofar as prospective authors are motivated by the expectation of economic reward and publication is necessary to reap that reward, free access to works of authorship can lead to suboptimal incentives to create *ex ante*. (In fact, this argument depends on a number of assumptions examined more closely in Sections 8 and 9 below.) Gordon (1992a) analyzes this argument as a prisoner's dilemma in which players simultaneously choose between creating a work of their own and

copying the work of another. For a plausible payoff structure, copying strictly dominates creation and the result is the Pareto-dominated equilibrium associated with prisoner's dilemma games - in this case, both players choose to copy and nothing is created.

Copyright solves this nonexcludability problem and escapes the prisoner's dilemma by giving authors legally enforceable property rights to exclude others from using their works without consent (or at least without paying). This is not the only possible solution and we discuss others in Section 9 below. However, one important benefit of copyright is its compatibility with a market. By eliminating the free-rider obstacle, copyright supports the creation of licensing markets which enable the informational and allocational advantages of a market mechanism.

### *3.2 Copyright and Coase*

The contract alternative deserves special mention here. Contract is a feasible option for solving the nonexcludability problem only when the author retains some significant control over the work after it is made public. After all, when a work is freely available, there is no reason for anyone to agree to restrictions on use. In theory, a prospective author might try to contract with free-riders in advance of creation. For example, he might try to get potential copiers to agree not to copy the work or potential consumers to commit to purchasing the work in advance. But in the real world, high transaction costs and free-riding often frustrate pre-commitment strategies like these (Gordon, 1992c).

On the other hand, if the author can restrict access to his work after creation - as when a playwright controls admission to a theater staging his play - the author can, in theory at least, condition admission on a promise not to copy. Under these circumstances and in the absence of transaction costs, it should not matter who has the initial entitlement. According to the Coase Theorem (Coase, 1960), whether the author has an entitlement to prevent copying or each audience member has an entitlement to copy, the parties will bargain to the efficient outcome, rendering copyright unnecessary.

When transaction costs are considered, however, the case for copyright becomes much stronger (see Calabresi and Melamed, 1972; Gordon, 1992a, 1992b, 1992c). By assigning the entitlement to the author rather than the audience, transaction costs are reduced substantially (Landes and Posner, 1989). Although some intellectual products are better left unowned or owned by the public in general, (Lange, 1981; Litman, 1990; Gordon and Postbrief, 1998), giving rights to a small, closed class rather than to the public is a familiar device for developing workable exchange systems (Holderness, 1985). It is much easier for copiers to identify the author whose entitlement they must purchase, than it is for the author to identify multiple copiers all of whose entitlements he must purchase. Moreover, with the entitlement in the author,

only those who actually wish to copy will seek licenses, so the author need contract with only a subset of the larger group. By contrast, if each member of the public held an entitlement to copy, the author would have to contract with everyone who had access to his work, thereby multiplying transaction costs (Gordon, 1989, 1992c). (In addition, potential copiers might demand more in the aggregate than the value of the work to the author, rendering agreement impossible.)

Thus, the economic case for copyright is not confined to overcoming nonexcludability and stimulating creativity. Copyright also can encourage efficient exploitation of information assets. It does this by fashioning property rights that minimize transaction costs and facilitate market transactions that transfer information assets to their highest valued uses.

#### 4. Costs of Copyright

Copyright also generates costs, however. These costs fall into four categories: (1) monopoly pricing; (2) chilling of future creativity; (3) transaction costs of licensing; and (4) costs of administration and enforcement.

##### *4.1 Monopoly Prices and Deadweight Loss: Inexhaustibility*

Copyright confers monopoly power and monopolies can result in deadweight loss whenever perfect price discrimination is not possible. The inexhaustibility feature of information only exacerbates this problem. Normally everyone can enjoy an information product without depleting its quantity or quality. In this sense, information differs from tangible goods; for example, giving a particular chair to person A means denying it to person B. It follows from inexhaustibility that information, once created, could be supplied to everyone at the low marginal cost of duplication. Thus, the relatively high price charged by a copyright monopolist excludes consumers who otherwise would have purchased the information, thereby creating a social loss.

There is, therefore, a conflict between *ex ante* and *ex post* points of view. From an *ex ante* perspective, the nonexcludability feature of information means that a legal monopoly may be necessary to induce creation. But from an *ex post* perspective, the inexhaustibility feature means that any such monopoly will create some social loss.

This point has received detailed treatment in the economic literature on the private supply of excludable public goods. In one of the earliest articles, Davis and Whinston (1967) demonstrate that an efficient allocation cannot be achieved by any nondiscriminatory pricing device, even when property rights make exclusion possible at zero cost. Moreover, since consumers have an incentive to lie about their preferences, even a public supplier of information will have difficulty determining how much to supply (Davis and Whinston,

1967, pp. 367-368). In a later article, Demsetz (1970) shows that an efficient result can be achieved with exclusion when the supplier of the inexhaustible good has perfect information about consumer preferences and can perfectly price-discriminate.

Baumol and Ordover (1977) study the same problem when sellers have imperfect information about consumer preferences and face a budget constraint. They show that, under these conditions, prices will be greater than zero in order to induce creation, thus inefficiently excluding consumers who value the information at more than its marginal cost but less than the price. Moreover, Kormendi (1979) shows that it is not possible to escape this loss by using a particular incentive-compatible mechanism to force truthful revelation of preferences.

#### *4.2 Chilling Future Creativity: The Cumulative Nature of Information*

Information is cumulative in addition to being nonexcludable and inexhaustible: people build on past information to make new creations, adding their own expression to elements borrowed from previous works. Thus, the monopoly created by exclusivity raises the cost of future innovation by requiring prospective innovators to obtain licenses. This burden is especially high for multimedia works, such as digitalized hypertext on CD-ROM, that borrow small amounts from a large number of previous works.

This cumulative feature of information figures prominently in the Landes and Posner (1989) model. There the copyright monopoly has two opposing effects on creation incentives. On the one hand, it enhances the prospective author's economic return from selling copies and thus strengthens the incentive to create. On the other hand, it increases the cost of borrowing from previous works and thus weakens the incentive to create. According to Landes and Posner, copyright entitlements balance these two effects with the ultimate goal of maximizing social benefit net of cost. One way that copyright law attempts to minimize the social cost of exclusivity is by limiting the grant of exclusivity to 'expression' and placing no restraints on the public's use of the most important informational building blocks, namely, general ideas.

#### *4.3 Transaction Costs of Licensing*

Licensing involves transaction costs, including the cost of bargaining and the cost of bargaining breakdown. These costs can be reduced somewhat by clear definition of the property right, by consolidating ownership in one or very few entities and by vesting copyright in authors rather than third parties (at least insofar as authors have superior information about the value and potential uses of their works). In addition, privately formed licensing collectives, such as ASCAP and the Copyright Clearance Center, can make licensing feasible by overcoming high transaction cost barriers to individual agreement (Gordon, 1982; Merges, 1997).

Even so, transaction costs can still be prohibitively high in some situations. Such high transaction costs provide an economic justification for fair use in United States copyright law (Landes, 1992; Gordon, 1982; Posner, 1992). The doctrine of fair use is discussed at greater length in Sections 10 and 11 below.

#### *4.4 Administration and Enforcement Costs*

The copyright system also produces administrative and enforcement costs. Administrative costs depend on such factors as the density of regulation and the intensity of review of copyright applications. In the United States, for example, copyright review is minimal compared to patent review, so the cost of administration is less for copyright than it is for patent.

Enforcement costs depend on the frequency of infringement and the average cost of enforcing rights against an infringer (such as the average cost of litigating a copyright infringement suit). It is significant in this connection to note that process costs can be particularly high for intangibles, such as information, because of the difficulty determining precisely what is protected and what has been taken. This argues for defining copyright entitlements as clearly as possible. However, copyright has no equivalent to patent law's requirement that applicants for protection state clearly the boundaries of the intellectual property rights they claim.

### **5. The Effect of Network Externalities**

#### *5.1 Two Types of Network Externality*

Certain types of information exhibit a phenomenon called 'network externality', which can have a profound effect on the economic analysis. The network externality problem has received careful attention in the economic literature, beginning with several articles published in the mid-1980s (Farrell and Saloner, 1985; Katz and Shapiro, 1985, 1994; Arthur, 1989; Liebowitz and Margolis, 1994). The idea first surfaced in the legal literature in an article analyzing the proper scope of copyright protection for computer programs (Menell, 1989; see also Menell, 1987, 1994; Friedman, 1994; Dam, 1995, pp. 345-352; Lemley and McGowan, 1998).

The term 'network externality' refers to a situation where the value of a good to each consumer increases with the number of consumers who own the good. The telephone illustrates one kind of network externality. The more people who own a telephone, the more people there are to phone and the greater the value the telephone confers on each person who owns it. Telephone owners form a network and by joining the network each new owner creates external benefits for other network participants.



The second type of network externality is more indirect. It arises when consumers purchase two compatible products, such as a computer (for example, DOS-based, Windows-based, or MAC-based) and software compatible with that computer. In a dynamic model, consumer choice of computer can affect producer decisions about compatible software, which in turn can feed back to affect future demand for that computer. For example, if consumers begin to gravitate toward DOS-based computers, software producers will shift toward writing more DOS-compatible software. The richer selection of software for DOS machines will then induce more consumers to buy DOS-based computers, which will cycle back to increase investment in DOS-compatible software. Thus, a consumer's choice of computer confers external benefits on all owners of that type of computer by increasing the marginal incentive to produce compatible software.

#### *5.2 Network Externalities and Computer Programs*

Both types of network externality are relevant to determining the optimal scope of copyright for computer programs. For example, if switching costs are high enough, giving copyright protection to a popular user interface that has become an industry standard can extend the copyright owner's monopoly into the computer, not just the interface, market. Copyright can also retard the formation of socially beneficial networks by increasing the cost of interface-compatible software. And by enhancing the economic return to new interfaces, copyright exacerbates the natural tendency toward incompatibility in a network environment due to the spillover benefits that compatibility confers on competitors. For a discussion of these effects, see Menell (1989, pp. 1066-1069).

Copyright can also have beneficial effects in a network environment, however. For example, the dynamic feedback set in motion by initial computer choice can make it difficult for consumers to switch to a clearly superior product later on. Computer manufacturers who anticipate this lock-in effect will have little incentive to search for better operating systems. Copyright can counteract this to some extent by encouraging innovation rather than copying (see Menell, 1989, pp. 1070-1071).

Thus, one must take account of network dynamics, as well as nonexcludability, inexhaustibility and cumulative effects, when considering information products, like computer programs, that exhibit network externalities.

### **B. Two Doctrinal Applications**

In Sections 6 and 7 we briefly illustrate the economic analysis by using it to explain two basic features of copyright: the limited duration of rights and the requirement of actual copying for infringement.

## 6. Limited Duration

The limited duration of copyright follows from the declining marginal benefit of term extension coupled with the positive marginal cost (see Landes and Posner, 1989). First, the marginal social benefit of increasing the copyright term is likely to decline with term length. There are several reasons for this. Because most authors have a declining marginal utility for money, they receive less utility from each additional extension of the copyright term. As a result, term extensions have a diminishing positive impact on creation incentives. Moreover, because prospective authors discount future economic return to present value, the more temporally distant the return the less its marginal effect on *ex ante* incentives (Liebowitz, 1986b; Macaulay, 1841).

Second, there are costs to increasing the copyright term, including the cost of tracing copyrighted works, which, some argue, is more difficult the older the work (Landes and Posner, 1989; see also Liebowitz, 1986b, describing other costs). At least if marginal cost remains constant or increases with term length, then the combination of declining marginal benefit and constant or increasing marginal cost suggests a point of optimal copyright duration. This is the point where marginal benefit just equals marginal cost.

## 7. The Actual Copying Requirement

The limitation of copyright to rights against actual copying rather than independent creation can be explained by the nature of innovation in the copyright field (Landes and Posner, 1989). It is important to note at the outset that a right against actual copying is all that is needed to overcome a prisoner's dilemma (assuming perfect enforcement), since a person cannot free ride unless she copies. Still, rights against independent creation enhance the economic return to innovation and might make sense if there was some reason to provide stronger incentives. Patent law, for example, confers a right against independent replication and the broader right confers a substantial benefit on patent owners because of the significant risk of independent creation in the technological field. By contrast, little of the information subject to copyright - at least outside the field of popular music - is prone to independent replication. A particular poem or novel, for example, is likely to be so distinctive that no one other than the author would ever conceive it. As a result, a right against independent replication might confer little additional benefit.

Moreover, enlarging the right in this way would likely increase costs. Given the vast number of copyright-protected works, a prospective author would have difficulty knowing whether his contemplated creation was likely to infringe. As a result, it might be necessary to require registration as a condition to copyright

- as is done for patent - to assure a complete record of copyrighted works for authors to search. This would add significantly to administrative costs and conceivably alter the conditions for creation in a permanently negative way (if it is true that authors thrive in a non-bureaucratic environment). Moreover, broader rights would be likely to produce more copyright enforcement actions and thus higher enforcement costs.

In sum, the potential benefits of recognizing a right against independent replication are likely to be so small in the copyright field that the potential costs should be decisive. By contrast, broad patent rights confer substantial benefits on patent owners because of the much higher risk of independent invention - and they also encourage early disclosure, which has special advantages in the patent field.

### C. A Closer Look at the Argument

#### 8. Seven Core Conditions

The economic argument is not equally strong in all settings. Its persuasiveness depends on a number of conditions that vary with the process of innovation and the structure of information markets. For example, when a copier's work is not a perfect substitute, the adverse effect of copying is mitigated to some extent. Moreover, lead-time and price discrimination can sometimes make it possible for a creator to recoup fixed costs without the assistance of copyright.

Seven conditions, when present together, make the strongest economic case for copyright:

- (1) The cost of independent creation is very high.
- (2) A second party is able to copy the creation from its originator at a cost lower than the cost of independent creation.
- (3) These copies are perfect substitutes for the originator's product, being identical to the originator's product in regard to all characteristics that affect consumer preferences. Such characteristics include, *inter alia*: quality, reliability, number and quality of distribution networks, authenticity and associational value and support services provided in connection with the product.
- (4) Consumers *perceive* the two products to be perfect substitutes. (It can be argued that if this condition is met, it does not matter if the copies indeed *are* perfect substitutes.)
- (5) The difference between the cost of copying and the cost of independent creation is high enough that the price the copyist charges will be

significantly less than the price the originator would have to charge in order to recoup his costs of independent creation.

- (6) In the absence of an opportunity to recoup the costs of independent creation, no one will invest in creative activity.
- (7) The independent creator can recoup her costs only by means of selling or licensing copies and that in doing so she has no effective recourse to price discrimination.

Though oversimplified (for example, the list ignores the effects of uncertainty), this list of seven core conditions supports a prisoner's dilemma whose payoff structure actively discourages independent creation (Gordon, 1992a).

Not surprisingly, one usually finds copyright proponents citing most of these conditions as if they typically characterized most information industries. For example, copyright proponents claim, as an empirical matter, that copying is cheap enough and distribution easy enough - especially with technologies such as the computer, the photocopy machine and the Internet - that copyists can easily compete with independent creators by offering the same product at lower prices and thus capture the market completely or force the creator to sell at a price lower than sufficient to recoup her creation costs.

## 9. Challenges to the Basic Argument

Responses to this core defense of copyright are many. Most critics of copyright dispute the empirical accuracy of the core scenario. They question how often the core conditions discouraging creation actually arise. For example, regarding condition 2 (ease of copying), Breyer (1972) and Palmer (1989) discuss lead time as a non-copyright mode of limiting strangers' abilities to copy one's work. Another class of response can be analogized to the usual caveats about the prisoner's dilemma, such as the effect of repeated play. Thus, for example, Breyer (1972) argues that publishers whose works are plagiarized might issue below-cost reprisal editions, fear of which might help to prevent copying *ab initio*.

An additional strategy of copyright critics is to focus on those copyright doctrines that explicitly grant exclusivity in areas far beyond the core case. As an example, consider the provision of American copyright law that grants an author the exclusive right to authorize 'derivative works' such as translations, dramatizations and adaptations. The typical example of a 'derivative work' is a movie made from a copyrighted novel.

The right over derivative works extends the author's monopoly into markets other than the market for the original work. It does this by giving the author

control over copies (uses) of her work that do not serve as substitutes for her original work and which are costly for the maker of the derivative work to produce. For example, the author of a novel has a derivative work right that gives her control over movies based on her novel. As a result, she receives an economic return not only from the original market for novels but also from the derivative market for films.

In such cases, virtually none of the core prisoner's-dilemma conditions apply. Even if the law did not vest control over derivative works, authors might still be able to recoup their fixed costs by selling copies in the original market (for example, the market of book buyers). As a result, whether the grant of a derivative-work right is necessary to bring forth cost-justified new works is highly debatable (Landes and Posner, 1989; Gordon, 1992b). Much more empirical research is needed to resolve the issue (Priest, 1986).

Further empirical work is also needed to test the prevalence of the core conditions more generally. To illustrate, consider conditions 3 through 5. Though the cost of copying diminishes as technology advances (so that condition 5 often applies), true equivalence between authorized and unauthorized versions of the product is unlikely (so that conditions 3 and 4 will often fail to apply). For example, a creator will sometimes be able to use better-established distributional networks, call on brand (authorial) loyalty, or provide its product prior to the copyist's entry into the market. There are also exceptions to condition 6 (the assumption that creation depends on remuneration). It is argued that some originators, such as artists, will engage in creation regardless of the likelihood of being compensated monetarily.

Moreover, consider condition 7 (the assumption that recompense comes only through copies and that price discrimination is impracticable). In fact, it is possible to receive an economic return without selling copies. For example, songwriters sometimes perform at profitable concerts and academic writers receive university salaries. Even when sale of copies provides the copyright owner's primary revenue source, price discrimination may be a feasible way for the copyright owner to capture some of the private benefits of copying. In the latter connection, Liebowitz has shown that journal publishers may have adapted to the practice of photocopying by charging higher subscription prices to those institutions likely to copy journal articles (Liebowitz, 1986b).

#### **D. The Economics Of Fair Use**

##### **10. The Market Failure Argument for Fair Use**

One of the most important and most controversial features of American copyright law is the doctrine of fair use. Fair use provides a case-specific

defense to charges of copyright infringement and is typically applied where free copying will serve the public interest, such as in connection with news reporting, classroom photocopying, critical analysis and parody (17 U.S.C. section 107). While many nations include similar limitations in their copyright laws, those nations differ in the scope of the exceptions they recognize. The fair use doctrine in American law is quite broad - applying, for example, when doctors need quick photocopies of medical articles to provide treatment, or when someone needs to use portions of a work for a news report or a parody.

Although there are a number of dimensions to the fair use doctrine, economic analysis can explain many of its applications (see, for example, Gordon, 1982; Posner, 1992; for noneconomic approaches, see Fisher, 1988; Gordon, 1993; Netanel, 1996). The basic idea is to allow free copying through fair use whenever obstacles to market formation are serious enough to frustrate access by licensing, selling, or other modes of consensual transfer.

If a market does not develop for a creative work or use because high transaction costs impede bargaining, then prohibiting copying makes little sense from an economic perspective. Such a prohibition would prevent socially valuable uses without providing any monetary return to creators. Recognizing a fair use defense under these circumstances gives copyists and other users access to whatever works happen to be created. Thus, in the presence of transactional barriers to bargaining, the fair use doctrine serves the important function of facilitating diffusion without significantly chilling creativity. In addition to providing a way around transaction-cost barriers, fair use has also historically responded to other market imperfections such as beneficial externalities that a copyist's work will generate, wealth effects that make parties' willingness to buy or sell unreliable guides to utility maximization and the presence of nonmonetizable interests (Gordon, 1982; Loren, 1997).

This analysis has implications for policy in individual cases. If a defendant faces market failure with copyright, then there is a good argument (if not a complete one) for not enforcing the copyright against him. Thus, it can be argued that fair use has evolved as an equitable response to market failure, as a way to ensure that socially desirable uses will not be blocked (Gordon, 1982).

### **11. Some Fair Use Applications**

For example, consider photocopying by individual scholars. The transaction costs involved in contacting a copyright owner for permission to photocopy might well outweigh the benefit the scholar expects to reap. In such a case, enforcing the copyright would merely eliminate the photocopying without generating any license fees for the copyright owner. On the other hand, granting fair use to the scholar would not impair the copyright owner's

potential income stream and would allow a socially beneficial use to go forward that transaction costs barrier would otherwise have blocked. At the same time, one must take into account the dynamic possibility that even without fair use, institutional responses such as compulsory licensing (Gordon, 1982) and voluntary copyright collectives (ibid., Besen, Kirby and Salop, 1992; Merges, 1996) might emerge to reduce transaction costs and relieve market failure.

The market failure approach is consistent with the great bulk of fair use precedent and in recent years this analysis has found its way into judicial opinions. However, the source and type of market failure can vary markedly. For example, while fair use for academic photocopying might be supported by the high transaction costs associated with a large number of potential users, fair use for book reviews and parodies requires a different analysis (Gordon, 1990; Posner, 1992; Yen, 1991b). Since the critic or parodist has no trouble identifying the copyright owner, we must look for an account of market failure to such things as holdout problems, wealth effects (Gordon, 1990, 1997), commodification difficulties (Gordon and Postbrief, 1998), externalities (Loren, 1997; Gordon, 1982), redistribution (Merges, 1997) and informational asymmetries.

## 12. Conclusion

Of the many intriguing and unsolved questions remaining to be investigated, perhaps the most important unexamined area is the *cost of exclusivity in expression*. It is usually assumed that because copyright does not give exclusivity in ideas, or over useful objects' utilitarian aspects, its monopolies impose fairly low cost. As a result, copyright is remarkably easy to obtain and subsists for a relatively long time.

Under United States law, for example, copyrights last, typically, for the life of the author plus seventy years. By contrast, utility patents typically last twenty years or less. Also, federal copyright subsists immediately as soon as even a minimally creative expression is written down (or otherwise fixed in concrete form) and the investiture of copyright occurs without any requirement of government oversight. Even when claimants do apply to federally register their copyrights, their applications for registration need not demark the boundaries of their claims with any specificity. Patents, by contrast, typically issue only after a governmental entity has examined the specific claims made and only if the invention passes stringent tests of nonobviousness and novelty. Given the increasing economic importance of today's copyright industries, the assumption of low-cost copyright monopoly must be re-examined. The easily-granted, long-lived copyright may prove more costly than usually expected.

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