
14 Copyright

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This chapter sets out the economic rationale for copyright protection and describes the basic structure of copyright law.¹ It shows that copyright law has an implicit economic logic. Its doctrines can be best explained as efforts to create rights in intangible property in order to promote economic efficiency.

The benefits of copyright protection

Copyright protects original works of authorship that are fixed in a tangible form. A copyright covers not just unauthorized copying but also rights over the distribution of copies, derivative works and public performances and displays. As we shall see, however, property rights in copyrightable goods are subject to significant limitations. ‘Original’ does *not* mean novel or creative but simply that the work originates with the author: that is, the author did not copy it from another person. Originality is a threshold question. Its purpose is to save administrative and enforcement costs by screening out low-value works that probably would be created even without copyright protection. ‘Fixation’ also saves enforcement costs because it would be more burdensome for a court to decide, for example, if an alleged infringer had copied the plaintiff’s live jazz performance than one that had been taped or recorded (and, therefore, fixed).²

Original works include, among others, books, photographs, paintings, sculpture, musical compositions, technical drawings, computer software, sitcoms, movies, maps and business directories. These works all have in common what economists call a ‘public-goods aspect’ to them. Creating these works involves a good deal of money, time and effort (sometimes called the ‘cost of expression’). Once created, however, the cost of reproducing the work is so low that additional users can be added at a negligible or even zero cost.

To illustrate, suppose the marginal cost of manufacturing and distributing a copy of a novel is one dollar, there are no fixed production costs (for example, typesetting and editing costs are nil) and the author incurs a \$1000 cost (mainly his time) in writing the book. Once the \$1000 cost of expression has been incurred, it can be incorporated into additional copies of the book at zero cost. Put differently, once expression is created it is not diminished by one or one million uses. In the absence of copyright protection, competition among publishers would drive down the price of a book to one dollar. Publishers would just cover their full costs, with nothing left over to compensate the author for his efforts. As a result, the incentive for authors to write books will diminish, as will the supply of new books. Copyright protection enables the publisher to charge a price above one dollar without worrying about competition from unauthorized copies. A price of, say, two dollars would more than cover the costs of publishing and provide compensation to the author, encouraging him to write new books.³

To be sure, some original works will still be created even in the absence of copyright protection. There may be substantial benefits from being recognized as the creator or

from being first in the market, or the copies may be of 'inferior' quality. Creators may also use contract law or other private enforcement means to discourage unauthorized copying. For example, a software manufacturer could license the software subject to a contract term that prohibits the licensee from making unauthorized copies or derivative works. But a contract, unlike a copyright, would be difficult to enforce against third parties or subsequent purchasers of the original work. There is also the possibility that the creator will be able to capture some of the value of copies made by others by charging a higher price for the copies he makes. For example, the publisher of an academic journal may be able to charge a higher price to libraries to capture some of the value that individuals receive from copying articles in the journal.

In short, given the speed and low cost of copying as well as the difficulty of employing private measures to prevent copying, we would expect a decrease in the number of new works created in the absence of copyright protection. This leaves open the question of how extensive copyright protection should be. The answer depends on the costs as well as on the benefits of protection.

The costs of copyright protection

Unlike most ordinary goods, copyright protection generates access costs related to the public-goods aspect of copyrighted works. Access costs fall on both consumers and creators of subsequent works who substitute other inputs that cost society more to produce or are of lower quality, assuming (realistically) that copyright holders cannot perfectly price discriminate. In the numerical example above, consumers who value the work by more than the one dollar, the cost of making additional copies, but less than the two-dollar price being charged, will be deterred from using the work. This generates a social loss. Similarly, some creators will be deterred from building upon prior works because they are unwilling to pay the price the copyright holder demands. In this case, copyright protection raises society's cost of creating some new works. Paradoxically, too much copyright protection can reduce the number of new works created. To be sure, the copyright owner has an incentive to lower prices to potential customers initially denied access. But information costs and arbitrage may make price discrimination infeasible. In contrast, access costs are not a significant problem for most tangible goods. In a competitive industry, the price of a tangible good equals its marginal cost. Only individuals who value the good at less than its price (equal to marginal cost) are denied access.

The second major cost of a copyright system is administrative and enforcement costs. These include the costs of setting up boundaries or erecting imaginary fences that separate protected and unprotected elements of a work. They also include the costs of excluding trespassers, proving infringement and sanctioning copyright violators. Moreover, the public-goods character of copyrightable works also raises enforcement costs because it makes detecting 'theft' a greater problem. One may be able to copy a copyrighted work without the author knowing it. One cannot steal a car or house without the owner discovering it. Overall, the administrative and enforcement costs tend to be greater for intangible than for tangible property.

Separation of ownership

A fundamental feature of copyright law separates ownership of the copyright from the good it embodies. From an economic standpoint, this separation might appear puzzling

because, normally, concentrating in a single owner all rights to a good will minimize transaction costs and promote economic efficiency. For a copyrighted work, however, the opposite is often the case.

First, consider a work that has many copies. Imagine that each purchaser of a copy of a Batman comic book also acquired the copyright as well. Then someone wanting to make a movie, television series or clothing collection based on the comic book might have to obtain permission from millions of individual copyright holders in order to avoid infringement. This would create potential hold-out problems and add to transaction costs, compared to the alternative of separating ownership of the copyright from the physical good. Then a potential licensee need only negotiate a single transaction with the sole copyright owner.

A related reason for separation is that it enables the original creator to earn a return to cover the cost of creating the work. Although each owner of a copy of the comic book might be willing to pay a little more if he also owned the copyright, this amount is likely to be trivial because the high transaction costs of dealing with millions of copyright holders will make it uneconomical for a potential user to license the copyright in the first place. Alternatively, if each owner of a copy had the right to license the copyright, transaction costs would fall but the price of the comic book would not reflect any premium for the copyright. Competition among holders of copies would drive the licensing fee to zero and, thereby, reduce the incentive to create the original work.

To be sure, the efficiency explanation for separating ownership of the good from the copyright is less clear for a unique work such as a painting or sculpture where copying is likely to be very limited or not to occur at all.⁴ To illustrate, suppose *A* sells a unique work to *B* but retains the copyright. If *C* wants to reproduce *A*'s work, he must obtain access from *B* and a licence to copy from *A*. Typically, this will involve greater transaction costs than if *B* owned both the copyright and the work. But even here there are offsetting benefits from divided ownership. In the painting example, it will be more difficult for the artist to return to earlier themes because he risks infringing the copyright on his earlier work. Similarly, the author of a detective novel might be barred from writing sequels by the copyright owner. These problems will tend to multiply if the artist or author builds upon several of his earlier works in which he no longer holds copyrights. Or take the case of letters in which the copyright is held by the letter writer while the recipient owns the letter. The circumstances in which one desires to publish a single letter will be rare. Typically, the letter writer (say, a famous author) will have corresponded with many individuals. If a publisher desires to publish the collected letters, transaction costs will be lower if the author holds the copyrights (and retains copies of his letters) rather than numerous recipients who may be scattered throughout the world. A related problem concerns joint authorship such as a composer and lyricist who create a copyrighted song. Transaction costs are minimized because either the composer or the lyricist without the other's consent can license the song provided he shares equally the licensing revenues with the other party.

Doctrines that limit copyright protection

Because copyright tends to be a costly system of property, economics predicts that property rights in copyrighted works will be more limited than for tangible or physical property. Positive economic analysis of copyright law aims to show that various copy-

right doctrines that limit protection can be best explained as rough efforts to achieve the optimal balance between incentive benefits and access and other costs in order to promote economic efficiency. Consider the following important copyright doctrines.

Protection of expression

Copyright protects expression but not ideas, concepts, principles, techniques or processes ('ideas' for short). Protecting original ideas would involve substantial administrative and enforcement costs. From an evidentiary standpoint, it is far simpler to determine if *B* has copied *A*'s original expression rather than *A*'s original idea. In addition, most original ideas in copyrighted works are trivial and involve small expenditures of time and effort relative to the cost of expressing them. Hence the added incentive benefits from protecting ideas would probably be swamped by the resulting access and administrative costs.

Closely related to the idea/expression dichotomy is the merger doctrine. If we suppose that there are only a few ways of expressing an idea, protecting expression will, as a practical matter, protect the idea. Here copyright protection will be denied. Merger might occur, for example, in the case of instructions explaining a paint-by-numbers game. The game itself is an unprotected idea and the instructions are the expression. Since there is only a handful of ways of writing the instructions and the costs involved are probably small, the absence of copyright will reduce administrative, enforcement and access costs without having a significant effect on the incentive of firms to produce these games. A related explanation is that, since competitors are bound to produce substantially similar instructions whether or not they copied, it would not be worth the evidentiary costs to figure out whether copying took place.⁵

Protection against copying

Copyright protects against copying but not independent duplication.⁶ Here 'free-riding' is missing, so independent duplication will not significantly undermine the incentives to create new works. Two other points reinforce this result. First, independent duplication should be rare for most works. Second, if independent duplication were actionable, authors would spend less time creating new works and more time checking earlier works to avoid copyright liability. This would lead society to expend greater resources on administering the copyright system in order to facilitate searching old records.⁷ In short, since independent duplication is probably rare, it is unlikely that the added incentive benefits from making independent duplication actionable would be worth the extra costs it would entail.

Right of adaptation

Copyright gives the creator adaptation rights on his work. This right, called the derivative works right, is broader than the right to prevent unauthorized copying, for it covers 'any other form in which a work may be recast, transformed or adapted'.⁸ Examples of derivative works include the musical *My Fair Lady*, based on George Bernard Shaw's play *Pygmalion*, mechanical dolls based on the Walt Disney characters, the movie *Clueless* based on Jane Austen's *Emma*, or a dance performance based on a Jackson Pollock painting. If the underlying work is not in the public domain, the party creating the derivative work must get the copyright owner's permission.

The economic rationale for giving the original copyright holder rights over derivative works depends both on the added incentives to create original works and on the savings in transaction and enforcement costs that result from concentrating property rights in a single party. Consider first the incentive argument. One might reason that the added incentive benefits will be negligible if only a few copyrighted works will generate income from derivative works. Moreover, there is likely to be a substantial time lag between the date of the original work and the later derivative works. This, however, confuses *ex ante* and *ex post* returns. Even if the number of copyright holders who receive substantial income from adaptations is small, the *ex ante* return, which depends on both the small probability and the potentially large income, could be relatively large.

Turning to transaction and enforcement costs, consider derivative works based on a Walt Disney character. Many ancillary products, ranging from umbrellas to lunch boxes, incorporate Disney images. By concentrating the copyrights in Disney rather than having each creator of a derivative work hold a separate copyright, the court avoids potentially burdensome lawsuits involving multiple plaintiffs. For example, how would a court decide, among many similar and widely accessible works, which one the defendant copied from? Licensing costs would also rise because a potential licensee would be advised to seek licences from many parties to avoid the risk of being sued by one of them. Finally, the copyright on the original Disney character will be sufficient to prevent unauthorized copying of the various derivative works since a party copying from a derivative work will still infringe the copyright on the original work.

Fair use

Fair use limits the rights of the copyright holder by allowing unauthorized copying in circumstances that are roughly consistent with promoting economic efficiency. One such circumstance involves high transaction costs. For example, copying a few pages from a book probably does not harm the copyright holder because the copier would not have bought the book. Here *A* might be willing to pay *B*, the copyright holder, a sum that *B* would be happy to accept for the use of the work, but the cost of locating and negotiating with *B* may be prohibitive if all *A* wants to do is quote brief passages from *B*'s work. A fair-use privilege creates a clear benefit to *A* but does no harm to *B*, whereas, if copying were prohibited, transactions costs would prevent an otherwise beneficial exchange from taking place. Here fair use creates a net social gain. The copier benefits, and the copyright holder is not harmed.⁹

Another circumstance that justifies fair use may be termed 'implied consent'. Take a book review that quotes brief passages from the book. A book is an experience good so that accurate pre-use information about its quality is likely on average to enlarge the demand for it and benefit authors. A critical review may destroy the market for a particular work but on balance reviews will provide information to potential customers and thereby benefit authors. Moreover, if the law required the reviewer to obtain the author's consent to reproduce these passages, readers would have less confidence in the objectivity of the review, fearing that consent might well be conditioned on the reviewer's deleting critical parts of the review. And the more valuable the information, the greater on average should be the demand for the underlying works. In these circumstances, fair use can produce beneficial incentive effects and reduce access costs as well.

The final category of fair use involves some harm to the copyright holder that is more than offset by lower access costs and possible benefits to third parties. Here the courts are more likely to find fair use for a productive than for a reproductive use of a borrowed work. The former transforms the original work into a new work and reduces the cost of creating the transformative work since transaction and licensing costs are avoided. Still, deeming a productive use a fair use may result in lost licensing revenues to the author of the copied work. This loss, however, would have little effect on the incentive to create the copied work since the prospect of such revenues was largely unanticipated at the time the work was created. A reproductive use, on the other hand, is more likely to substitute for the original work and, therefore, have significant negative effects on the incentives to create that work in the first place.

The well-known ‘veil of ignorance’ concept provides a helpful way to explain why the law treats productive uses more leniently than reproductive uses. Behind a veil of ignorance, authors would be more likely to favour a rule allowing productive fair use because it would enable an author to borrow some expression from others and lower his costs, while his expected revenues would not change much when others borrowed from him. In contrast, a reproductive use risks substantially reducing the profits of the original author and hence his incentives to create the work in the first place.

Parody is often protected as a fair use. Parody can involve high transaction costs because of the difficulty of negotiating with someone you want to poke fun at. It provides information or critical comment like a review. Finally, it is a transformative use of the original work. Still, calling something a parody is not a blanket licence to copy the parodied work. Parody is limited in two ways. One is that the parody can only take what is necessary to conjure up the original work. It cannot take so much of the original work that it effectively substitutes for that work. The other is that the parody must be aimed at the work it parodies.¹⁰ Here the economic rationale is that a voluntary transaction is less likely when the parody attacks a particular work than when it uses the work to comment on or criticize society at large.

Other copyright issues

Infringement

Evidence that the defendant copied from the plaintiff is usually circumstantial because the public-goods aspect of intellectual property makes it rare to catch a copier in the act.¹¹ The two key evidentiary factors that support an inference of copying are a ‘reasonable probability of access’ to the plaintiff’s work (for one cannot copy without access) and ‘substantial similarity’ between the works. In some cases, striking similarity alone may support an inference of access. If the plaintiff’s work is unique and complex, and nothing similar exists in the public domain, its appearance in the defendant’s work is strong evidence of access, eliminating the possibility of independent creation. Once the plaintiff shows access and substantial similarity, the burden then shifts to the defendant to rebut the evidence. From an economic standpoint, this tends to minimize dispute resolution costs because the defendant possesses the information on how he created the work and, therefore, has the lowest cost of proving independent creation.

Finally, even if the defendant copied, his copying may not be illicit. The plaintiff must show that the substantial similarities between the two works relate to what the law

protects: expression not ideas, the non-utilitarian parts of useful works, what was original in the plaintiff's work, and that the copied material was not a fair use.

Authorship and work-for-hire

Authorship conveys a bundle of rights because copyright vests initially in the author of the work. But since most works are the product of numerous parties, how does the law decide the question of authorship? One possibility is that the author is the person who physically executes the work. But that might mean that the Copyright Act would deem a typist or research assistant the author or joint author. From an economic standpoint this would be inefficient for it would lead to added contracting and transaction costs as the party responsible for creating the work would require that his assistants assign the copyright to him. Consistent with efficiency considerations, the copyright statute provides that the author may be someone other than the person who actually fixes the work in a tangible form, although it leaves undefined the term 'author'. A more modern view of authorship is that it lies with the person who conceives of the work and arranges for its execution. Thus the market regards a conceptual artist as the author even though he hires other individuals to execute the work.

Coase's theorem is helpful in both deciding which party or parties should be deemed the author and in showing the futility of legal rules that are inconsistent with promoting efficiency. Recall that the Coase theorem states that, in the absence of transaction costs, the initial assignment of property rights will not affect the efficient allocation of resources. Suppose *A* and *B* are involved in creating a copyrighted work, *A* values the copyright more than *B* does, and the law regards *B* as the author because *B* has fixed the work. Then the initial contract between *A* and *B* will include a term that transfers the copyright to *A* or, if the contract is silent on this point, *A* will buy the copyright from *B* in a subsequent transaction. If the law had deemed *A* the author at the outset, contracting or transaction costs would be saved. This suggests that the law would promote efficiency if it assigned authorship and hence the copyright to the party who values it more: that is, the party who would wind up with the copyright if transaction costs were negligible.

There is another conception of authorship that is worth mentioning. Here, the author is the party who finances the work and bears the financial risks, although he may delegate the creative decisions to the party who actually executes the work. The 'work-for-hire' doctrine is based on this conception. A work created pursuant to an employment relationship (such as when Disney hires an animation artist who is paid a regular wage, receives fringe benefits and can be assigned to work on different projects) is unambiguously a work-for-hire. But a commissioned work executed by an independent artist may also be a work-for-hire if the commissioning party pays a monthly stipend, health and other fringe benefits during the time the artist works on the project, covers the cost of materials and exercises overall but not day-to-day supervision. Consistent with the Coase theorem, the work-for-hire doctrine lowers transaction and contracting costs by assigning the copyright to the party in the best position to exploit it. In the Disney example, transaction costs would be very high if each artist employed by Disney owned the copyright to his work. Then, each artist/employee would be in a position to hold up and delay projects (for example, publication of a comic book) that require Disney to coordinate the efforts of many employees. Knowing this in advance, Disney would acquire the separate

copyrights before embarking on a project. By assigning the copyrights to Disney at the outset, the work-for-hire doctrine saves contracting and potential hold-up costs.

Copyright duration

It is worth mentioning a major economic puzzle about copyright – its long duration. Today, a copyright lasts for the life of the author plus 70 years. In the case of a work-for-hire, the term is 95 years. But from an incentive standpoint, the present value of \$1000 in say 80 or 90 years is trivial given any reasonable discount rate. On the other hand, life plus 70 years can create substantial access costs (including the cost of tracking down the copyright owner and licensing the work) because a smaller amount of public-domain material will be available at any point in time.¹² Thus a shorter copyright term would reduce access costs without significantly reducing the incentives to create new works.

There are several possible explanations for a long copyright term. These include the possibility that the returns from copyrighted works occur mainly in the last few years, that the value of an author's earlier works will be enhanced by his later efforts and that a near-perpetual term avoids the 'tragedy of the commons'. The first argument appears factually wrong, based on an analysis of US data showing that copyrights were rarely renewed (for an additional 28 and later 47 years of protection at the end of the initial 28-year term) for works created before the 1978 Copyright Act.¹³ The second argument might account for a copyright term that extends 20 or so years after the author's death, but not 70 years. The third argument appears to overlook the widespread belief that copyrighted expression is not exhaustible, so the tragedy of the commons does not apply. We called this the public-goods aspect of copyright works. Unlike natural resources that can be used up by overexploitation, previous editions of Shakespeare's works do not preclude publishers from bringing out new editions. This objection to a lengthy copyright term, however, is overstated. It overlooks the possibility that unlimited use of a still valuable copyright that was dumped into the public domain (even many years after the work was created) could create negative externalities that might reduce the overall value of the work compared to extending the copyright term. A related economic argument against limiting the duration of copyright is that it reduces the incentive to invest resources in developing markets for works that have fallen into the public domain.¹⁴

Indirect liability

An important question in copyright today is: under what circumstances can *C* be held liable for *B*'s infringement of *A*'s copyright? Since *B* is the actual infringer, *C*'s liability would be indirect. There are two long-standing common-law doctrines of indirect liability: contributory infringement and vicarious liability.¹⁵

Contributory infringement

Contributory infringement applies when *C* induces, causes, or otherwise materially contributes to the infringing conduct of *B*. Consider the following example: suppose *C* manufactures a decoder box that enables any purchaser *B* to unscramble premium and pay-per-view cable programmes without paying for them. *A* is the injured copyright holder who owns those programmes and *B* is the direct infringer. Should the equipment-maker *C* be held liable for *B*'s infringement of *A*'s copyright?

Two considerations are worth noting. First, there are probably substantial enforcement and administrative savings if *A* is allowed to sue *C* rather than pursuing each *B* individually. The costs of tracking down many *B*s, gathering evidence as to the specific activities of each, and then litigating many separate lawsuits involving small damages would probably make it uneconomical for *A* to enforce its copyright. Because *B* knows this in advance, *B* has little incentive to comply with the law. By contrast, if the law holds *C* liable for the total damages caused by the many *B*'s, the savings in enforcement costs are likely to be sufficiently large for *A* to enforce its copyright. In turn, the prospect of liability will most likely put *C* out of business and lead some or most *B*s to pay for cable rather than infringe *A*'s copyright.

Second, if there are lawful uses of *C*'s product, the case for liability is weakened. The 'lawful use' question does not arise in the decoder example because the decoder's only use involves violating the law. But consider a firm that makes photocopiers or personal computers. Such a firm knows that some of its customers will infringe copyright, but the firm does not have specific knowledge about any particular customer. Thus, even though substantial savings in enforcement costs might still arise in these cases were courts to impose liability, it is unlikely that any court would be willing to do so. The benefits in terms of increased copyright enforcement come at too high a cost in terms of possible interference with the sale of a legitimate product.

In some cases it may be possible for the equipment-maker *C* to redesign its product in a way that would eliminate or greatly reduce the level of infringement without significantly cutting down on the quantity and quality of lawful uses. In such cases, liability is again attractive. Often, however, these sorts of solutions are out of reach. For instance, it is hard to imagine a redesigned photocopier that would make infringement less attractive without substantially interfering with lawful duplication. As a result, holding the equipment manufacturer liable would be equivalent to imposing a tax on the offending product. The 'tax' would reduce overall purchases of photocopiers and it would redistribute income to copyright holders, but it would not in any way encourage users to substitute non-infringing for infringing uses.

The examples of the decoder box and the photocopier mark two extremes and serve to delineate the key issues. Holding all else equal, contributory liability is more attractive: (a) the greater the harm from direct copyright infringement; (b) the less the benefit from lawful use of the indirect infringer's product; (c) the lower the costs of modifying the product in ways that cut down infringing activities without substantially interfering with legal ones; and (d) the greater the extent to which indirect liability reduces the costs of copyright enforcement as compared to a system that allows only direct liability.

Vicarious liability

Vicarious liability applies in situations where one party – often an employer – has control over another and also enjoys a direct financial benefit from that other's infringing activities. A typical case arises where an employer hires an employee for a lawful purpose, but the employee's actions on behalf of the employer lead to copyright infringement. One rationale for imposing liability is to encourage the employer to exercise care in hiring, supervising, controlling and monitoring its employees so as to make copyright infringement less likely. Another is the cost savings from suing an employer rather than multiple infringing employees. A final rationale is that liability helps to minimize the implications

of an infringing employee who lacks financial resources to pay damages by putting the employer's resources on the line.¹⁶

Consider the example of a dance-hall operator who hires bands and other performers who sometimes violate copyright law by performing copyrighted work without permission. It is probably less expensive for a copyright holder to sue the dance-hall operator than it is for him to sue each performer individually, both because there are many performers and because the dance-hall operator is probably easier to identify and to serve with legal process. Putting litigation costs to one side, it is also the case that dance-hall operators are typically in a position to monitor the behaviour of direct infringers at a relatively low cost. Finally, because performers are more likely than dance-hall owners to lack the resources to pay copyright damages, vicarious liability prevents the externalization of copyright harm.

It is worth pointing out that the threat of vicarious liability has encouraged dance halls, concert halls, stadiums, radio stations, television stations and other similar entities to look for an inexpensive way to acquire performance rights. For the most part, they do this by purchasing blanket licences from performing rights societies, the two largest of which in the USA are Broadcast Music International (BMI) and the American Society of Composers, Authors, and Publishers (ASCAP). The blanket licence gives licensees the right to perform publicly all the songs in the performing rights society's repertoire for as many times as the licensee likes during the term of the licence. The blanket licence saves enormous transaction costs by eliminating the need for thousands of licences with individual copyright holders and by eliminating the need for performers to notify copyright holders in advance with respect to music they intend to perform. In addition, the blanket licence solves the marginal use problem because each licensee will act as if the cost of an additional performance is zero – which is, in fact, the social cost for music already created.

Current controversies

Probably the most significant legal decision in recent years was the 1984 Supreme Court decision in *Sony v. Universal City Studios*.¹⁷ The plaintiffs were firms that produced programmes for television; the defendants manufactured an early version of the videocassette recorder (VCR). The plaintiffs' legal claim was that VCRs enabled viewers to make unauthorized copies of copyrighted television programmes. This allowed viewers more easily to skip commercials, which diminishes the value of the associated copyrighted programming. Suing viewers directly would have been both infeasible and unpopular, so the programme suppliers sued the VCR manufacturers on grounds of both contributory infringement and vicarious liability.

The Supreme Court rejected vicarious liability because it did not believe that VCR manufacturers had sufficient control over their infringing customers. The only contact between VCR manufacturers and their customers occurred 'at the moment of sale', a time far too removed from any infringement for the manufacturers to be rightly compared to controlling employers.¹⁸ The Court rejected contributory infringement because the VCR is 'capable of substantial non-infringing uses' – legitimate uses that in the Court's view left manufacturers powerless to distinguish lawful from unlawful behaviour.

Importantly, the main concern in *Sony* was a fear that indirect liability would have given copyright holders control over what was then a new and still-developing

technology. The analogous modern situation would be a lawsuit attempting to hold Internet service providers liable for online copyright infringement. It is easy to see why courts would be reluctant to enforce such liability. Copyright law is important, but at some point copyright incentives must take a back seat to other societal interests, including an interest in promoting the development of new technologies and an interest in experimenting with new business opportunities and market structures.

Congress became involved with indirect liability again in 1998 when it passed the Digital Millennium Copyright Act.¹⁹ One provision immunizes from indirect liability a broad class of Internet access providers, telecommunications companies and Internet search engines, so long as these entities satisfy certain specific requirements designed to safeguard copyright holders' interests. The Digital Millennium Copyright Act established a safe harbour: if these Internet entities follow the requirements laid out by the statute – requirements that typically require the entity to act when a specific instance of infringement is either readily apparent or called to the entity's attention by a copyright owner – they are immune from charges of vicarious liability and contributory infringement.

Probably the most talked-about litigation on indirect copyright liability is the music industry's successful lawsuits against Internet startups Napster and Grokster.²⁰ Napster provided software that allowed a user to identify any song he was willing to share with others, and it provided a website where that information was made public so that an individual looking for a particular song would be able to find a willing donor. Napster had the ability to limit copyright infringement in ways that VCR manufacturers do not. Napster knew that specific infringing material was available using its system, and it could have used that knowledge to identify and block at least some of the infringing material. With respect to vicarious liability, Napster could have refused service to users who were violating copyright law. Grokster provided software for peer-to-peer sharing but did not index the songs that users were willing to share, nor did it monitor what songs were being downloaded. Still, the Supreme Court held Grokster liable because (unlike in *Sony*) its product was mainly used to enable consumers to infringe copyrights in music.

Notes

1. Although I focus on copyright law in the USA, the principal copyright doctrines are similar throughout most of the world. For a more complete analysis, see Landes and Posner (1989).
2. See Lichtman (2001).
3. In the case of unique works, such as a painting, the case for copyright protection is weaker because the main source of income typically comes from the sale of the work itself, not from copies. Still, unauthorized copying or 'free-riding' on unique artworks will reduce the income an artist receives from posters, note cards, puzzles, coffee mugs, mouse pads, t-shirts and other derivative works that incorporate images from the original work.
4. Of course, *A* may explicitly transfer ownership of the copyright to *B* or to anyone else. Our illustrations concern default rules in which there is no explicit contract governing ownership of the copyright.
5. See Lichtman (2001).
6. In *Sheldon v. Metro-Goldwyn Pictures*, 81 F.2d 49, 54 (2d Cir. 1936), Judge Learned Hand stated that 'if by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an "author" and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's. But though a copyright is, for this reason, less vulnerable than a patent, the owner's protection is more limited, for just as he is no less an "author" because others have preceded him, so another who follows him, is not a tort-feasor unless he pirates his work.'
7. It is worth noting that the copyright registration system involves minimal cost. Registration creates a public record of the basic facts of the copyright. An applicant seeking to register his work submits a

\$30 filing fee and fills out a short form listing the work's title, author, year of creation, and date and place of publication (if published). The applicant must also deposit a copy of the work (or, in cases where this is not feasible, a photograph of the work). Registration is optional and is not a condition for copyright protection, though it is a prerequisite to an infringement action in the USA (but not in most countries outside the USA). The Copyright Office makes no effort to search prior copyrighted works for similarities with the applicant's work before registering the copyright. Registration information and forms are available online from the US Copyright Office website (<http://www.loc.gov/copyright>).

8. See 17 U.S.C.A. § 106(2) (2000) and the definition of a derivative work in 17 U.S.C.A. § 101 (2000).
9. The high transaction cost rationale should be narrowly construed. Otherwise, it would reduce the incentive to develop innovative market mechanisms that reduce transaction costs. These include performing rights societies like ASCAP and BMI, the Copyright Clearance Center for journals, and two arts organizations (Visual Artists' and Galleries Association and The Artists' Rights Society) that license reproduction rights to the works of many artists.
10. See Posner (1992).
11. In the case of maps, directories, software and information-type works, the copyright holder often deliberately includes a few errors. If the errors show up in the alleged copier's work, this is pretty good evidence that he has copied from the original copyright holder. This is known as the common error doctrine. It is useful in discovering unauthorized copying because of a special feature of the copyright as distinct from the patent system. Under the patent system, the patentee must point out and distinctly claim what he regards as his invention. In copyright, you do not have to identify beforehand the elements for which you claim protection. Thus, if you publish a book based on public-domain material plus your own material, you do not have to point out which is which.
12. I add, however, that, just as potential future revenues from a longer copyright term must be discounted, so must future access or deadweight losses.
13. See Landes and Posner (2003).
14. Both the negative externality and investment arguments in favour of an unlimited copyright term (more correctly, permitting copyrights to be renewed if they are sufficiently valuable to cover the costs of renewal) are developed in Landes and Posner (2003).
15. This section is taken from Landes and Lichtman (2003).
16. Note that employers are held responsible only for infringements that occur within the scope of employment. Infringement committed by an employee on his own time and for personal reasons would not trigger vicarious liability. See Sykes (1998).
17. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).
18. The Court took a restrictive view of what it means for a manufacturer to 'control' its purchasers. For example, the Court did not consider whether a relatively simple technology solution – say, making the fast-forward button imprecise and thus diminishing the ease with which purchasers can skip commercials – might have gone a long way toward protecting copyright holders without interfering unduly with legitimate uses.
19. Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).
20. See *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001) and *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

See also:

Chapter 8: Artists' rights; Chapter 17: Creative industries; Chapter 35: The Internet: economics; Chapter 55: Resale rights.

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Further reading

Towse *et al.* (2008) is an accessible survey of the literature. Landes and Posner (1989) is the seminal article on the law and economics of copyright.