12-2009

The Evolution of Copyright Law in the Arts

Kevin Liftig
University of Connecticut - Storrs, liftigger@gmail.com

THE EVOLUTION OF COPYRIGHT LAW IN THE ARTS

KEVIN LIFTIG

1. Introduction

> "From its beginning the law of copyright has developed in response to significant changes in technology." - Justice John Paul Stevens for the majority in Sony Corp v. Universal City Studios

As digital storage of intellectual goods such as literature and music has become widespread, the duplication and unlicensed distribution of these goods has become a frequent source of legal contention. This problem is nothing new. Throughout history, when technology for production and replication of intellectual goods advanced, there were disputes concerning the rights to produce and duplicate these works. As new technologies have made copies of intellectual goods more accessible, legal institutions have largely moved to protect the rights of ownership of ideas through copyright laws. Institutions have also sought to maintain incentives to create and distribute these works. While there are a few historical instances of technology working to aid producers such as anti-duplication methods, technological increases have largely favored the consumer. Likewise, with relatively few exceptions legal institutions have ruled in favor of the producer to expand the scope of copyright protections.

Date: December 10, 2009.

Intellectual goods are not physical books, recording, or files. Rather, intellectual goods are the ideas and the work contained within the physical host. One individual's copy of *Harry Potter and the Chamber of Secrets* is not the intellectual good. All copies of *Harry Potter and the Chamber of Secrets* contain the same intellectual good, which is the ideas, plot, characters, and story arranged to form the whole work. Traditionally, intellectual goods have been viewed similarly to pure public goods, so they are considered to be non-rivalrous and non-excludable. A non-rivalrous good is a good for which the consumption of the good by an individual does not diminish the availability of the good for others to consume. For example, two individuals can be reading the same book at the same time, but the fact that the book is being read by one individual does not negatively impact the utility of the other individual. A non-excludable good is a good that it is impossible to prevent any individual from consuming. Air is a purely non-excludable good because it is impossible to prevent an individual from consuming air (Raven 2005).

Intellectual goods are relatively non-excludable goods. An individual may be excluded from the physical good that contains the intellectual good, but once an intellectual good has been created it is difficult to restrict its distribution. The legal institution of copyright is an attempt to make intellectual goods more excludable and to make them function less like public goods. The classic argument for this protection is that without this protection, publishers would not receive income, and would be unable to compensate authors for their work. This is

the argument for strong copyright law with maximum excludability, which is favorable to producers over consumers. However, the opposite conclusion can just as easily be reached. Since intellectual goods are inherently non-rivalrous and non-excludable, then a lack of copyright protection does not change the natural state of the good, and it benefits the public to allow each individual to possess all of the great intellectual works for a very low price. In this line of argument the purpose of copyright is to ensure the progress of science and the arts, whereas weak copyright law would promote the dissemination of science and art. Viewed in these terms, stronger copyright laws that increase the excludability of intellectual goods sacrifice current availability of intellectual goods to promote future availability by giving creators incentive to generate more intellectual goods (Raven 2005).

Legal institutions have attempted to balance these viewpoints, to create a system that both protects property rights, and promotes the spread of knowledge. However, any balance that legal institutions create is inherently temporary. New technologies have required copyright law to be revisited and revised, time and time again. Each technological advance in the field of duplication has disrupted the existing balance and has required adjustment by legal institutions. New technology continually lowered costs of production and replication. As production and replication costs fell, legal institutions expanded lengths of copyright protects, and the types of goods covered by copyright laws.

The methods of conveying intellectual goods are dependent on technology available. Intellectual goods function as private goods rather

than public goods when replication by individuals (other than the producers) is very costly. As technology for replication improves, and the cost to duplicate the good falls, preserving incentives to produce and purchase the good in a market require an institution such as copyright law (Adelstein 1985, 217).

Recently, challenges have been made to the traditional view of intellectual goods as non-excludable, non-rival public goods. The traditional view holds that markets provide insufficient incentives to produce intellectual goods, and that the institution of copyright exists to create additional incentive to produce. However, the institution of copyright creates a trade-off between incentive to produce and public access to intellectual goods. The outcome can be balanced by copyright law, but this approach necessitates that both access and incentive to produce will never be optimal (Yoo, 2007, 2).

Christopher Yoo advocates a different approach to intellectual goods. Rather than viewing non-excludability or non-rivalry as the defining characteristics of public goods, Yoo returns to Paul Samuelson's original work on public goods. Samuelson focused on "the fact that the same quantity of production can appear as an argument on more than one person's consumption function" (Yoo, 2007, 3). So each consumer of the good consumes the entire output of the public good. This means that consumers will all consume the same quantity of a public good, but will signal their preferences by willingness to pay different prices. Therefore optimal production must satisfy the "Samuelson Condition", which requires expanding the production of public goods as long as

the aggregate marginal benefits derived from all consumers exceed the marginal cost of increasing production. However, in this case, the equilibrium is difficult to find because consumers preferences are expressed through prices rather than quantities, so consumers do not reveal their marginal valuations of the intellectual goods. In this system consumers have incentive to understate value, so other customers will bear a larger proportion first-copy costs (Yoo, 2007, 4).

By viewing the problem of copyright trade-offs in terms of satisfying the Samuelson condition, Yoo's paper hopes to change the parameters of the problem, and to explore new solutions. Yoo suggests that intellectual goods can vary by *quality* in addition to *price* and *quantity*. If quality is variable, consumers may reveal a preference by changing their purchasing habits to maximize quality. This could reveal consumer preferences even when consumers are unable to reveal their preferences through quantity and may be unwilling to do so through price (Yoo, 2007, 5-6). This approach could potentially determine whether markets can support optimal production and allocation of impure public goods. However, even if an optimal solution exists that does not mean it will be reached, or that legal institutions could take steps to ensure the optimal solution is the outcome.

2. Publishing and Originality disputes in the Pre-Modern world

Before the creation of copyright, intellectual goods found some measure of protection through the nature of the hosts in which they were contained. Prior to the invention of written language epic poems or

songs could be contained only within the memory of the creator and those he taught it to. Poets, musicians, and storytellers could make a living through recitation and had direct control over who accessed the intellectual good. The consumer could access the good only through interacting with the producer for the time it took to convey the intellectual good. A personal interaction between producer and consumer had to be ongoing, and the consumer could only experience the intellectual good if the artist chose to share it, presumably in exchange for some sort of compensation.

With the invention of written language, literary works and written material could be set down in some physical host like stone, bone, metal, skins, and eventually paper. The invention of a common musical notation also allowed composers to record works of music in manuscript form. In this period after written language but before the invention of movable type, neither creators nor publishers of intellectual good needed copyright protection. Demand was highest for works such as Scripture, and classical Greek and Latin texts were all clearly in the public domain. Living authors generally wrote either for the divine or to create art for art's sake and with no financial motivation. Furthermore, since all written works and manuscripts could only be copied by hand, the process of creating an unauthorized copy of any work would require a significant amount of access time to the original manuscript, copying materials, and the effort of painstakingly copying the entirety of the desired text by hand (Adelstein, 1985, 224).

Despite the tremendous effort involved, there was at least one major dispute over a hand-copy of a manuscript. Around the year 560 in Ireland, Saint Columba was involved in a dispute with Saint Finnian of Moville over a psalter, a volume containing the *Book of Psalms*. Columba had copied the manuscript at a scriptorium run by Saint Finnian. Columba had intended to keep the copy but Finnian disputed this. Both agreed for Diarmaid son of Fearghus Ceirrbheoil, King of Ireland, to give judgment. He ruled against Columba, stating that to every cow belonged her calf and that to every book belonged a copy of it (Annals of the Four Masters, 555 A.D.). This did not resolve the dispute and it eventually escalated into the Battle of Cúl Dreimhne in which three thousand men died. Afterwards Columba exiled himself and went on to found a monastery on Iona, a small island off the coast of Scotland (Annals of the Four Masters, 557 A.D.).

3. The Formation of British Copyright Law

When William Caxton introduced the printing press to London in 1476, the informal system was no longer sufficient. As press technology spread and the demand for books rose, a population of "book pirates" emerged. These book pirates would purchase a copy of the original printer's book for the specific purpose of duplicating their own printed versions of the work to sell to the public. Pirates had an advantage over original publishers because they did not have to bear the original costs of production or assume risk in publishing works with uncertain demand. As secondary producers, pirates could choose the most popular and profitable works to pirate. As buyers of the original

good, these secondary producers were often indistinguishable from actual readers, so the publishers could not prevent piracy by refusing to sell to secondary producers. Even if they could identify and prevent sale to pirates, they would not be able to prevent ordinary readers from selling their copies secondhand to pirates (Adelstein, 1985, 224). This reduced the incentive to produce original works or take any publishing risks. In publishing, profits from successful books offset losses from unsuccessful books. In this situation, profits from successful books went to pirates who could produce cheaper copies because they did not have to bear the cost of unsuccessful works. Since the original booksellers had no way to recover losses, they appealed to the monarchy to create some institution to allow them to combat piracy.

The British Crown began to grant letters patent that gave individual printers monopoly privileges to print particular works. These patents asserted property rights over intellectual goods distinct from any physical property rights (Adelstein, 1985, 225). These rights did not protect authorship or creation of intellectual goods, but focused on the distributors, the printers. The Crown invested tremendous authority in printers, giving the Stationer's Company, a guild of London printers, a charter granting them a monopoly on printing throughout all of England, and police powers to suppress printers who violated their monopoly. In addition, the guild became responsible for enforcing any censorship the Crown desired. The Guild enforced censorship by banning secondary production, ensuring that they had control over all printing that occurred in the country and that others could not

print objectionable material. While this change in the dynamics of the industry once again created profits and gave printers incentive to operate, authors found themselves hurt by the power given to the printers (Adelstein, 1985, 225). This was the first of many acts from a legal institution that granted more power to producers in response to technology that allowed secondary duplication.

Throughout the latter half of the sixteenth century, patents protected three classes of books. The Crown issued patents to individuals or groups to print specific works in what we would consider the public domain, such as the Bible. Other patents were granted by topic; they covered all books of a particular subject including those not yet written and were again issued to printers. Some patents protected named works with named authors. Often these patents covered only learned works that involved an incredible amount of time and expense to compile. One such example is a 1573 patent that gave an eight-year privilege for Ludivick Lloyd to create an English translation of Plutarch's *Lives* (Feather, 1992, 456). Still, patent privileges covered very few books among many. This system benefited the Stationers Guild. A 1583 investigation concludes, "stationers hath diuers copies seuerall to themselues w(ch) they enioye as fully as if they had the Quenes preuilege for euerie of them" (Feather, 1992, 457). The stationers had tremendous authority over copy protection and were using this power to expand their influence further and effectively grant themselves copy privilege over works not officially covered by their royal patents.

The Monopolies Act of 1614 was intended to stop abuses of the patent system in general, but specifically excluded "grants of privilege heretofore made or hereafter to be made concerning printing". This showed the support that the printing industry had from the crown, especially the Solicitor-General, Sir Thomas Coventry, who assured James I that the Stationers mainly produced books that are "not worth of your majesties priuelege" and which "the printing of them [has been] settled already." This referred to the practice of assigning rights to the first publisher of any new book. In 1583 a commission reporting on the Stationers described this practice, saying that all the stationers try to purchase any book that they can get any learned man to make or translate so that they can become the first printer of the book thus gaining *de facto* copyright privilege (Feather, 1992, 458).

Although the Stationer's Guild maintained its control of both printing and censorship of written material, the balance of power within the guild itself shifted. For the first ten or fifteen years that the Stationer's Guild held its charter, the printers controlled the guild and the book trade. However, as press technology spread and more printers entered the market, the balance of power shifted so that booksellers gained dominance in the Guild, and by the 1580's printers found their role becoming paid agents of the copy owners (Feather, 1992, 463).

The Stationer's Guild moved to incorporate patents from the older system of individual copy protection, and gained exclusive rights to print works such as the Bible, the Statutes and common law books. However, these works were frequent targets of piracy. To combat this,

Richard Day, who held a large number of patents including those on many popular schoolbooks, made an arrangement with John Wolfe, one of the larger book pirates. Day made Wolfe a shareholder in his group of patents and expanded ownership of this patent group. The patent group became so large that the owners delegated management to the governing board of the Stationers Company. As the owners purchased other patents to add to the group, people referred to this collection of patents as the "English Stock" (Feather, 1992, 466). Members of the Stationers Company bought shares; the profits made from publication of the works belonging to the Stock paid the dividends. Thus, the Company controlled the various properties in the Stock, which had formerly existed under the royal patent system. In this manner Day was able to respond to Wolfe's piracy without actually appealing to a government institution allowing them to come to an unique and mutually beneficial arrangement, rather than have an arrangement enforced by a legal institution.

A clear system of ownership of intellectual goods had been set forth, but the Stationers Guild only allowed its members to register copies. Entry into the Guild's Register was the only acceptable proof of copy ownership, so the Guild had absolute control of it. In theory, the Monopolies Act of 1614 allowed anyone to own rights to a copy, but in practice this only applied to rights granted by royal patent (Feather, 1992, 466). Although entry into the Register was only a record of ownership and did not explicitly confer rights of ownership, generally

the first member of the Guild to enter his copy into the Register received exclusive rights to publish the work in perpetuity (Stern, 2008, 72).

4. Copyright Legislation in England

A few cases of author's rights did emerge. Under James I, the Crown began to protect the author's rights to some works of scholarship. James I used his power as king to grant author's rights to John Minsheu's *Glosson Etymologicon* and John Marriott's *Pharmocoeia Londiniensis*. There was a vague awareness of some author's rights, shown by the fact that many were compensated for their work; however, since the Stationers controlled the system, sales of the work were on the Stationers' terms and most of the existing law protected the first publishers from being outsold by pirated versions rather than protecting the author's original work (Feather, 1992, 472).

The 1662 Licensing Act broke with previous law by allowing reprints of excerpts of books and pamphlets without permission from the copy holder. The Licensing Act considered the book the actual property. While the law did not permit complete duplication, there was no prohibition against use of excerpts, scenes, characters, and style (Stern, 2008, 73). Renewal of the Licensing act met with opposition in the 1692-1693 parliaments. Opponents cited its lack of protection for author rights, as certain entries in the Stationers Register recorded rights to persons other than those who had originally entered them, implying corruption in the system. A member of the Stationer's guild did testify that "he found several leave rout out of the Register-book about the date or time of the entry of most of the said copies" and "saw several

of his copies entered again to other persons" (Stern, 2008, 73). The opposition to renewal in the House of Lords stated that the Licensing Act "subjects all Learning and true Information to the arbitrary will and pleasure of a mercenary and perhaps ignorant Licenser, destroys the properties of authors in the copies; and sets up many monopolies." The Act was still renewed, but its renewal period was shortened to only a year and a session, so it would be reexamined by Parliament in 1695 (Stern, 2008, 74).

Between the 1692-1693 sessions and the 1695 session, opponents of the Licensing act gained the support of John Locke. Locke focused on the rights of readers to have "fairer and more correct" as well as less expensive versions of the ancient classic books than were being published under the current system. Booksellers were monopolizing works that should be available cheaply and readers were forced to pay for "excessively dear" editions of classic works. Locke also commented on preprint censorship, the monopoly of the Stationer's Guild, and the exclusionary system of copy registration. Locke pointedly stated: "Sometimes when a book is brought to the Company of Stationers, if they think it may turne to account, they enter it as theirs" (Stern, 2008, 75). Locke argued for the creation of an expiration of copy holding after a period of 50 years. Parliament rejected the bill to renew the Licensing Act. Members proposed a new bill in its place that offered no copy protection at all. The Stationers Guild opposed this version of the bill. Another version of the bill that would have done nothing other than renew the licensing act was proposed, but Edward Clarke,

a politician and friend of Locke, protested that "[the publishers] enter a Title to themselves, and their Friends, for what belongs to, and is the Labour and Right of others" (Stern, 2008, 75).

The outcome of this legal debate was the elimination of pre-print licensing and the copy registration requirements of the Stationers Guild. Members of Parliament proposed bills with limited terms of copy protection as Locke suggested. However, it was not until 1710 that the Act of Anne replaced the expired Licensing Act. Members of the book selling industry had called for author's rights to benefit their own interest, but this appealed to those who had opposed the renewal of the Licensing Act. The Act of Anne called for a term of copy protection of fourteen years. There was the possibility for a renewal of an additional fourteen years if the author was still alive after the first fourteen years (Stern, 2008, 76). The act allowed a twenty-one year term for works already in print (Rose, 1988, 52). The publishing industry was able to ignore these term limits, allowing perpetual copyright until 1774 when the case of *Donaldson v. Beckett* occurred, the culmination of a series of copyright dispute cases throughout the 18th century. The Act of Anne was also the first time that authors in addition to publishers were able to secure and hold copyrights (Rose, 1988, 57). Parliament initially intended for author's rights to prevent the Stationer's Guild from continuing to monopolize valuable older copyrights. The Stationers would later use author's rights as one of their own arguments in attempting to maintain perpetual control of works they had purchased.

5. Copyright in the Theater

As copyright was being defined for literature, the theater was also developing its relationship between authorship and production and the distribution of printing rights. Generally, playwrights worked on commission from the theatrical companies. Records of the Admiral's Men, a company owned by Phillip Henslowe, show that when a playwright completed a play, Henslowe would pay the playwright a single fee. The play would then enter the company's repertory, and the company had the rights to perform the play whenever they wished (Feather, 1992, 467). This implies a transfer of ownership to the theater company upon sale. A case in which playwright Robert Greene was accused of selling the same play twice, once to the Queen's Men and again to the Admiral's Men, suggests that this sale of a play was a complete transfer of all rights to the play (Feather, 1992, 471). The other predominant English Theatre company, the Chamberlain's Men (later King's Men under James I), was a joint stock company. William Shakespeare was the principal shareholder of this company; after 1598, records show, his plays belonged to the company (Feather, 1992, 468). This appears to be an arrangement of convenience on the part of Shakespeare. A playwright would often compose for either the company that employed him or one in which he was a shareholder.

Booksellers did not publish plays written in this period very frequently so the role of authorship usually did not come into play. Since a performance (rather than a printed copy) conveyed the intellectual good of a play, generally the sale of the play to the theater company was

sufficient to deal with rights. While a theater company might produce several hundred plays a decade between 1590 and 1605, only eighteen plays published belonged to the Admiral's Men; and from 1597 to 1612, only thirty-two of the plays King's Men were published (Feather, 1992, 468). The publication of plays introduced complications with rights. Since the publishers who controlled the enforcement of anti-piracy laws ran the Stationer's Guild, they worked only to protect the interest of publishers and not the theater companies who owned the plays. Many corrupt texts of plays were printed. The text of the first edition of Henry VI part 2 was mangled and not written entirely by Shakespeare. Despite this, the publisher Thomas Millington entered the book into the Stationers' Register as normal, granting himself the rights to publish the work. Millington also had the power to transfer his rights, presumably by sale, to Thomas Pavier (Feather, 1992, 468).

The Stationer's Guild did not consider it piracy to publish a theatrical work without the consent of the theater company. The book trade considered piracy to have taken place only if the rights of a Stationers' Company member were infringed, rights that could only be proven by an entry in the Stationers' register. This view offered the theatrical companies no protection of the works that they had purchased from playwrights, so they turned to their most powerful patron in hope of obtaining help in the case of infringement. In 1619 the Court of Assistants ordered "vppon a ler from the right hoble the Lo. Chamberleyne It is thought fitt and so ordered That no playes that his Matyes do play shalbe printed without consent of some of them" (Feather, 1992, 468).

The Lord Chamberlain, patron of the theater company, decreed that theater companies had the right to prevent publication of their works if they so chose. However, interventions such as this were infrequent, and in practice, plays functioned as all other books, intellectual goods waiting for publishers to turn them into as profitable copies.

6. Copyrights in Music

The relationship among playwrights, theater companies, printers and publishers was similar to the relationship among musical composers, opera houses, printers and publishers. While the primary employers of many composers were the Church and wealthy aristocratic patrons, during the late 17th century and early 18th century there was a substantial amount of free-lance composing in both England and continental Europe. The most profitable compositions tended to be operas sold to opera houses. Some local governments owned opera houses. In other areas contributions from many wealthy citizens paid for the construction of a local opera house. In both cases the owners delegated management to an impresario. The impresario would contract with composers to produce individual operas. The composer would compose an opera and conduct the first performance, and in return received an honorarium from the impresario for the effort (Scherer, 5, 2008).

A composer might write an opera while on retainer by local nobility, but would still receive a lump sum honorarium for each composition. Similarly, composers might be writing free-lance at the same time as

receiving church employment or patronage from nobility. George Frideric Handel received an annual stipend from the King of England while acting as an impresario for his own operas and oratorios (similar to operas but concerning sacred themes and less actor performance). Other composers would moonlight as performers. Johann Sebastian Bach performed in coffee houses in Leipzig. Franz Liszt and Niccolo Paganini both toured concert halls as virtuosos (Scherer, 5-6, 2008). As more concert venues were organized, opportunities for free-lance performance became more prevalent and composers began to finance and promote many of these performances themselves.

As the amount of free-lance work increased, intellectual property rights came into play in several ways. Laws acknowledged the right for the composer to receive creative credit for writing a musical work. The composer also had the right to allow or refuse performance of compositions for individual performers, and performances of works such as operas and symphonies. They also had the right to publish their works. Composers rarely claimed credit for the work of other composers, but when they did and were discovered, public opinion became a means of enforcement as the plagiarizing was often shunned and very unsuccessful afterwards. A more common form of property right violation was the performance of a work without giving the composer compensation. Ludwig von Beethoven combated this by increasing the difficulty of his piano sonatas to a point where few besides himself could actually play them (Scherer, 7, 2008). Determining and protecting rights to large works such as operas was more complex. Once a composer

sold the opera score it became property of the impresario, in the same way that once an author sold to a bookseller the copyright became the bookseller's property. The impresario had the right to make numerous duplicates of the score for the numerous performers, and generally the impresario had the rights to stage as many performances as he liked without paying the composer further. An exception was Paris where a 1776 decree created a provision for compensation to the composer for the first 40 performances (Scherer, 2008, 7).

The large number of copies of the score that were necessary to stage a performance facilitated piracy of operas. The copyists hired to make copies of the score would often make more than they needed and sell these copies to other opera houses. This system of piracy flourished in Italy which had less strict regulations than other areas and a multitude of opera houses. The father of Wolfgang Mozart used this to gauge reception to the opera *Mitridate*, stating: "The copyist is full of joy, which in Italy is a very good omen, since, when the music pleases, the copyist can sometimes make more money sending out and selling the arias than the composer received for his composition"(Scherer, 2008, 7).

Pirates stole works for publication in addition to performance. A composer might negotiate publication with publishers who would pay an honorarium for the right to publish just as they would to any author. However, some publishers, notably John Walsh of London and Probst of Leipzig, would obtain published works and create their own editions without compensation. Copyists also found it lucrative to sell

publishers extra copies they had made to prepare for a performance. Copyists might sell to a pirate publisher, who could potentially publish before the composer's publisher could make a printing.

To combat this piracy, composers had several approaches. In general, composers offered manuscripts to publishers with a reputation for not pirating works. George Frideric Handel had the innovative approach of hiring his main pirate John Walsh as his official publisher. Another practice was dividing manuscripts between several copyists so that none had access to the full version. Composers closely supervised copyists to make sure they did not create and steal extra copies. In some cases composers took more drastic measures, such as Beethoven's confrontation with the Artaria house in Vienna, where he drew giant "X's"' across their illegal copies of his work (Scherer, 2008, 8).

Musical copyright evolved alongside literary copyright. As with literary copyright, there was initially a system of privileges granting rights to certain works. Composers or publishers could petition feudal lords for the exclusive right to a musical work or works. In France the publishing house LeRoy and Ballard petitioned for rights, and received the exclusive right to publish all musical works from 1551 to 1713. Without centralized government in many parts of the European continent these privileges had little power outside the local area. The 1709 Act of Anne, did not initially cover music, and the Crown continued to grant privileges. However, a wealthy London composer, Johann Christian Bach, pushed for the extension of the Act of Anne to music, after London publisher James Longman pirated his works. After a legal

case in 1773, the Act of Anne expanded in 1777 to include musical compositions. In 1852, Parliament extended the law further to include performance rights in addition to publication rights (Scherer, 2008, 10).

7. Donaldson v. Beckett and other court cases

Many legal disputes throughout the eighteenth century centered on abridgment. Copy holders did not bring suit against imitations, anthologies and revisions of works, but occasionally an abridgment would include close to the entirety of the original work, leading to a dispute. In 1741 *Gyles v. Wilcox*, a legal treatise borrowed from Sir Matthew Hale's Pleas of the Crown including "the greatest part thereof in the very words thereof". Although a "real and fair" abridgment was supposed to include more than cosmetic changes, this abridgment was allowed because of its abbreviated length not any creativity by the abridger (Stern, 2008, 77). Other cases such as the 1761 case *Dodsley v. Kinnersley* and the 1774 case *Straham v. Newbery*, were decided in favor of the abridgments on the grounds of reduced length and saving the readers time (Stern, 2008, 78).

The success of abridgments in court cases caused many defendants facing infringement cases to claim they had made abridgments even when this was clearly not true. In 1752 *Tonson v. Walker* concerned the publication of a serialized form of *Paradise Lost* including notations from the Tonson edition in the defendant's magazine. After a failed argument that the work had fallen out of copyright, the defense unsuccessfully argued that the work was an abridgment. Similarly, in

Macklin v. Richardson, the initial argument was unrelated to abridgment. The defense argued since Macklin had performed the work as a play and had not published it he, "gave a right to any of the audience to carry away what they could and make any use of it" (Stern, 2008, 78). Only after this argument failed the defense unsuccessfully argued it was an abridgment. These cases show that much of the law's view of piracy centered on length. While the *Tonson* and *Macklin* cases were viewed as piracy because there was no reduction in length, the *Gyles*, *Dodsley*, and *Strahan* cases all consisted of direct copying, but the court decided there was no infringement because the works were reduced in length.

In 1774 the landmark case of *Donaldson v. Beckett* served to further define the terms of copy protection set forth in the Act of Anne and to further define the notion of "authorship". Alexander Donaldson was a Scottish bookseller accused of piracy for a reprint of James Thomson's *The Seasons* six years earlier. Thomas Beckett a London bookseller, claimed the copyright (Rose, 1988, 51). The original work was published in 1730, and with the twenty-eight years of protection the Act of Anne granted, the statutory protection of the work expired in 1758, ten years before Donaldson reprinted it. The nature of literary property became the major issue in the case. Donaldson argued that the statute was a maximum term of copyright, but Beckett and other members of the Stationers Guild maintained that literary property was a common-law right, existing perpetually. They argued that the Act of Anne only existed to supplement the common-law right.

This case garnered a significant amount of public attention, with the *Edinburgh Advertiser* reporting: "No private cause has so much engrossed the attention of the public, and none has been tried before the House of Lords, in the decision which so many individuals were interested"(Rose, 52, 1988). This case was a large step in the competition between the London publishers and booksellers in the Stationer's Guild and the booksellers from provincial regions, especially Ireland and Scotland, whom the Guild's regulations did not affect. *Donaldson v. Becket* was the largest copyright dispute in the century, and received a significant amount of attention from the press because its decision would impact them directly.

Donaldson v. Becket also raised issues concerning the definition of property and the changing role of the author in society. In the years preceding the case, the increased demand for books began to change how authors supported themselves. Authors had previously been supported by wealthy patrons who were looking to increase their own prestige by retaining renowned writers. With the increase in book sales, authors began to develop as independent professionals who supported themselves by the initial sales of their manuscripts to publishers. Lord Camden, a major figure in the House of Lords, opposed this trend and all literary protection in general.

> Glory is the Reward of Science, and those who deserve it, scorn all meaner Views: I speak not of the Scribblers for bread, who teize the Press with their wretched Productions; fourteen Years is too long a Priviledge for their perishable Trash. It was not for Gain, that *Bacon, Newton, Milton, Locke,* instructed and delighted the World;

> it would be unworthy such Men to traffic with a dirty Bookseller for so much as a Sheet of Letter-press. When the Bookseller offered *Milton* Five Pounds for his Paradise Lost, he did not reject it, and commit his poem to the Flames, nor did he accept the miserable Pittance as the Reward of his Labor; he knew that the real price of his work was Immortality, and that Posterity would pay it (Rose, 54, 1988).

The idea of authorship was evolving. Authors had the power to support themselves rather than being dependent on the favor of a noble. Under the system of patronage authors did not have legal rights to their work. Early printing privileges functioned as patronage from the crown not as a legal copyright. A writer could own his physical manuscript and then sell it to a bookseller or theater company, but the author did not own the ideas. John Milton made several statements on the matter of authorial ownership. One concerned "the just retaining of each man his several copy (which God forbid should be gainsaid)", referring specifically to the Stationer's Guild copyright. Later, Milton spoke of the "human right, which commands that every author should have the property of his own work reserved to him after death as well as living" in response to King Charles I quoting Sidney's *Arcadia* prior to his execution (Rose, 1988, 55).

The thinkers of the Enlightenment defined the idea of intellectual property alongside the idea of property itself. John Locke's *Two Treatises of Government* attempted to explain the creation of private property as such: "Whatsoever then he [a man] removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joyned to it something that is his own, and thereby makes it his

property" (Rose, 1988, 56). Locke's definition of property stated that it was a natural right not a construction of the state. London booksellers would use this argument to attempt to elevate the status of the author as a creator and owner of property, so that the sale of manuscripts to booksellers would transfer these property rights to themselves. The booksellers believed that an author was entitled to what his labor had produced, and that the work was the author's absolute property. This property was transferred to a bookseller by its sale, but continued to be absolute and perpetual under its new owner, the bookseller. Booksellers filed most of the literary property court cases in the 18th century in defense of author's rights. However, the author's themselves were often absent from these cases (Rose, 1988, 58).

The court ruled that authors had a common law right to unpublished works, but the process of publication transformed the common law right into the statutory right that the Act of Anne protected for a finite duration. However *Donaldson v. Beckett* and the other court cases changed copyright from a license protecting the Stationer's monopoly to a full property right. While *Donaldson v. Beckett* itself did not increase the power of copyright, the new language of property law that it was framed in allowed for the expansion of the copyright term.

With the UK Literary Copyright Act of 1842, the fourteen to twenty-eight year term specified under the Act of Anne, grew to a forty-two year term, or the life of the author plus seven years, whichever was longer. After the death of the author, the British government could issue a compulsory license to publish works that would benefit the public

(Khan 2005, 231). Throughout the 18th and 19th centuries, copyright expanded to include sheet music, maps, charts, sculptures, paintings, photographs, drama, and some lectures in addition to books. However there were strict guidelines. The owner needed to pay appropriate fees on time. The owner also needed to send free copies of every edition to the British Museum as well as to specific libraries including Trinity College and the Bodleian. The government could only issue copyrights to foreigners if they could show they were part of the British Empire; prior publication in a foreign country or colony could prevent the grant of a copyright (Khan 2005, 231). By 1878 a British Commission reporting on the state of the copyright system felt that the statutory copyright laws were "obscure, arbitrary, and piecemeal"' and the confused state of the common law compounded this trouble. British copyright law underwent a major shift after the Berne Convention, a European copyright agreement. The Bern Convention brought British copyright law more in line with Continental European practices, and the former English model found its closest parallel in the laws of the United States of America (Khan 2005, 234).

8. Copyright in the United States

Prior to American independence, the American colonies generally did not recognize copyright protection. Local publishers produced works such as newspapers, almanacs and bills, which could saturate the market during a first run printing. Medical and religious works were also common, but the authors of these works wanted to maximize distribution of their work rather than maximize profit. The government dealt

with literary works on an individual basis. John Ledyard and Noah Webster eventually lobbied for general copyright statutes, and Connecticut passed the first American copyright law in 1783, titled "Act for the encouragement of literature and genius" (Khan 2005, 234). In order to be protected, books had to be offered at a reasonable price and in sufficient quantities; the author also had to be a Connecticut resident or the resident of a state with a law that reciprocated benefits to Connecticut. The other original states enacted similar laws over the next few years, the last being Georgia and New York in 1786.

In 1790 Congress passed a federal copyright statute. This statute required the submission of title of the work to the local district court and a registration fee of 60 cents. When a work was registered the author or proprietor submitting the work secured the right to print, publish, and sell the work for a term of fourteen years, with a possible renewal for another fourteen years. This statute only extended to American works, stating: "nothing in this act shall be construed to extend to prohibit the importation or vending, reprinting or publishing within the United States, of any map, chart book or books ... by any person not a citizen of the United States"(Khan 2005, 235). This effectively encouraged piracy of foreign works. In addition, this demonstrated very clearly that despite strong copyright laws in one country, without international agreements and recognition it was not possible to enforce copyright laws abroad.

In 1802 Congress extended the copyright statute to include protection of art design. The 1802 act also required a copyright notice to be

included on the work, and set a fine for infringement at one dollar per copy, and false notice of copyright at one hindered dollars. By 1831 the term of copyright was extended to twenty-eight years with a possible renewal for fourteen more years, and it covered books, maps, charts, musical compositions, prints, woodcuts, and engravings (Khan 2005, 257). New technology allowed for the duplication of many types of works. In response to this Congress sought to expand and strengthen the powers of copyright law.

While statistics on copyrights for this period are available it is difficult to obtain systematic information from them. There is a large range of value in copyrights, a large range of types of works copyrighted, and no presumption that the state of the art is improving over time (as later works can often be quite derivative of more popular earlier works). Analysis of aggregate copyright registrations would have to deal with all of this. However litigation records can help examine the relationship between copyright, markets, and social welfare (Khan 2005, 238). They can also help to identify trends and show the evolution of legal institutions concerning copyright.

Many copyright disputes in early nineteenth century America did not reach court. The courts were very favorable to intellectual property and enforcement was frequent. This atmosphere facilitated the private settlement of disputes among the small publishing community because the infringer did not want a lawsuit they had little chance of winning. Copyright holders filed the most lawsuits in New York and Pennsylvania. Due to its role as a center of publishing and commerce

New York accounted for almost half of all copyright dispute cases in the United States.

In contrast, the South had very low levels of copyright registrations, book sales and marketing of print. In 1856, leading publishing company Ticknor and Field's sales in the city of Cincinnati were equal to its sales in the entire South. In the sale year the amount of money Ticknor and Fields spent advertising in New York City was higher than all the Southern states combined. The South lacked extensive book markets, mostly preferring English authors and purchasing few but expensively bound books. Low literacy levels are one explanation for the lack of a mass market for books in the South. Other arguments cite the lack of railroad transportation and manufacturing for the state of the Southern book trade (Khan 2005, 239). Railroad technology distributed book further and more quickly than was possible in the past. This aided the growth of larger publishing houses that could mass produce books in one location then ship them throughout the country. Fewer railroads in the South meant less access to books and other non-local printed material. It is possible that this lack of exposure to print could have then contributed to the lower literacy rates, which were a factor in the low demand for books.

Unlike British copyright law, author's rights were not at the forefront of the language surrounding copyright law or disputes in America. American copyright law only acknowledged the economic interest that authors and artists had in their work, the same level of interest it acknowledged for any legal copyright owner regardless of whether

they were the creator of the work or not. The percentage of plaintiffs in copyright disputes who were authors started low and continued to fall throughout the nineteenth century. By the first decade of the 20th century only 8.6 percent of plaintiffs in copyright cases were the creators of the disputed work (Khan 2005, 239). While British authors did not often play a role in copyright disputes, the language of the author's common law property rights to their creative labor was common in these disputes. American copyright disputes forewent this language, as the law explicitly considered copyright to be a commercial rather than creative concern.

In American copyright law "the primary object [was] to promote the progress of science and useful arts, thereby benefiting the public, and as a means to that end, and as a secondary object, to secure exclusive rights to authors"' according to the court in *Koppel v. Downing* 1897 (Khan 242, 2005). Along these lines a 1909 report to congress stressed that copyright legislation "under the terms of the constitution is not based upon any natural right that the author has in his writings" but again to promote progress and the public welfare. The 1909 report also emphasized the importance of practical works over aesthetic works. Copyrights of non-fiction works such as maps, atlases, treatises, law reports dictionaries and data compilations outnumbered works of fiction such as novels and poetry. Most court cases surrounded non-fiction works as well. Some litigation focused on whether the protected object was worthy of protection. In *American Trotting Register Assn*

v. Gocher et al. a list of racehorses who had completed races in under two minutes and thirty seconds was protected because it had been "compiled at great expense and labor" (Khan 2005, 243). Pictures in circus advertisements were also protected in *Bleistein v. Donaldson Lithographing Company*, despite the dissenting opinion claiming they did not promote "useful" arts. The value of compiled data statistics grew over the 19th century. In 1829 the publishers of a record of current stock prices and review of the market state lost a case they filed for infringement because the court felt daily stock prices did not contribute to science. By the end of the century, this information was highly valued, and in 1895 *William B. Dana Company v. United States Investor* favored the plaintiff, the publisher of a financial paper (Khan 2005, 244). Again copyright was expanded as scientific advances gave more value to certain intellectual goods.

Court decisions attempted to serve the general welfare rather than protecting creators' rights. The courts used the doctrines of first sale and work for hire to do so. Under first sale copyright holders lose all rights after they sell their works, preventing an artist or heirs claiming remedy if the owners alter or distort works. This favored market interactions, as the purchasers were able to gain more befit from their purchases than in a system in which the purchaser is liable for changes to a work. The principle of work for hire was widespread including copyrights in art, drama, maps, and print. 1895's *Donaldson v. Wright* concerned a claim by Donaldson that Carroll Wright's editing of Donaldson's report for the Census Bureau served to "emasculate"'

his research. The court decided in favor of Wright and that once Wright paid Donaldson for his work Donaldson lost rights to it. The decision argued that otherwise similar problems could arise where employers hired workers to prepare data and statistics (Khan 2005, 245).

While courts frequently sided with copyright owners, when they did not it was usually due to improper process in filing copyright. Requirements were strict: the law required perfectly worded notices in the correct position, owners needed to pay proper fees on time, and the owner needed to deposit copies to the Library of Congress on time. These regulations served to prevent the registration of useless items. Furthermore, the rule of compliance benefited copyright owners in that it created a more efficient system in which proper registration lowered the transaction costs of identifying owners. These regulations also allowed litigation and enforcement to be clearer, protecting only works that had followed the correct procedure. The requirement for deposit in the Library of Congress also created a central repository of knowledge that had a high public value (Khan 2005, 247).

Technological advances of the nineteenth century pressured the institution of copyright law, and forced it to change and evolve. Questions arose concerning the scope of copyright. As the nineteenth century progressed works in new mediums sought copyright. In 1865 Congress extended copyright to photographs and negatives. However, since photography created a means to copy books, paintings and engravings, the legal institutions were forced make decisions concerning the legality of

such copies. *Rossiter v. Hall* concerned photographs of copyrighted engravings of George Washington's house which copyright law protected against unauthorized reprints. The defendant argued that photography had not been invented at the time of the statute so the law did not prohibit photographs. The court rejected this argument ruling that the photographs were unauthorized reprints (Khan 2005, 249).

The creation of the player piano and recording technology also raised questions for copyright law. The law protected sheet music, but player piano inputs were not quite analogous to sheet music. Similar questions arose when manufacturers of phonograph records created records using copyrighted sheet music. In both of these cases the court did not feel that copyright protection extended from sheet music to these new technologies. In *Kennedy v. McTammany* the plaintiff owned the copyright to sheet music which the defendant had used to create a player piano roll. The court could "find no decided cases which, directly or by analogy support[ed] the position of the plaintiffs"' (Khan 2005, 248). The policy continued until 1909 when Congress revised copyright law to give composers first rights to mechanical reproductions of their music. After this recording, the law allowed production future recordings with a fee of two cents per recording (Khan 2005, 248).

New technology created means of reproduction which often led to infringement of rights. In response Congress expanded both the scope of copyright laws and lengthened the term of copyright laws to maintain the value of copyright as the cost of reproduction and infringement fell. However, the declared purpose of American copyright law,

to promote learning, continued to restrict these extensions. American terms of copyright were some of the shortest in the world, and while copyright protected the way that the author presented ideas and the expressions used, the ideas themselves were never protected under copyright and remained in the public domain. The fair use doctrine allowed for the use of some of a copyrighted work, just as the law allowed some abridgment in England. The extent of what was fair use was difficult to determine. Supreme Court Justice Joseph Story created a guideline that the court must "look to the nature and objects of the selections made, the quantity and value of the materials used, and the degree in which the use may prejudice the sale or diminish the profits, or supersede the objects, of the original work" (Khan 2005, 250). The fair use doctrine allowed unauthorized use only when the loss to the property owner was small, thus eliminating high transaction costs that could arise over trivial matters. Fair use also promoted the spread of knowledge which was of significant importance to the courts and lawmakers. Extremely strict copyrights that did not allow fair use would reduce scholarship, prohibit public access, and inhibit learning and the Constitutional mandate to promote scientific progress (Khan 2005, 251).

9. The Berne Convention and the Internationalization of Copyright law

During the 19th century, foreign publishers printed an increasing number of pirated British works. French publishing houses supplied British tourists with cheap reprints written in English. Belgian and

American reprints were also common. Many of these reprints found buyers among libraries, book clubs, and individual readers. Other continental European publishing houses focused on publishing local editions of British works. American newspapers also began to reprint the entirety of some British novels (Seville 2006, 43). The 1842 Copyright Act contained provisions to address concerns of British publishers about foreign reprints. The act imposed a 10 pound fine for importing foreign reprints for sale or library lending. The government could then seize and destroy these books. The act did not affect imports for personal use. This act did not prove effective against foreign reprints, and customs agents took little action to enforce it. The 1845 Customs Act extending this system to British colonies, and the 1847 Foreign Reprints Act were similarly ineffective (Seville 2006, 48-49).

In 1851, British and the French signed a treaty granting reciprocal protection of copyrights. Since many publishers of pirated reprints were French, this was a major step in securing copyright protection for British authors and publishers. The treaty extended to musical and dramatic works, but did not cover "fair imitations or adaptations to the English stage of any dramatic piece of musical composition published in any foreign country"' (Seville 2006, 52). This affected French dramatists more so than British dramatists. Parliament used the treaty with France as a model for later agreements with other nations. The British Government signed conventions with Belgium in 1854, Spain in 1857, and the Italian state of Sardinia in 1860.

A Congress met in Brussels in 1858 to discuss international copyright issues. The Congress drafted an agreement "in favor of an international and uniform copyright amongst all civilised nations, to be adopted even when unattended with reciprocity, and of giving foreign authors equal rights with natives, and without requiring the execution of any special formalities beyond those required in the country of original publication" (Seville 2006, 53). The agreement also favored temporary copyright over perpetual, with a suggested term of the author's life plus fifty years. While the Congress did not enact any of these provisions, they did open a broad international discussion. The 1878 Paris Congress called for similar measures, but insisted on treating the author's right as a perpetual property right, rather than a temporary legal concession. The congressed pushed the French Government to take more action to create and international agreement. When the French did not act, the Swiss Government began to initiate meetings leading to the Berne Union in 1886 (Seville 2006, 59).

From 1883 until 1886 the Swiss Government hosted annual conferences in Berne, with the purpose of finally creative a permanent international copyright law. These meetings led to a "Union for the protection of the rights of authors over their literary and artistic works" (Seville 2006, 63). Countries could enter the Union at any time, by agreeing to the current regulations of the Convention. The original signatories of the Convention were Britain, Belgium, France, Germany, Haiti, Italy, Liberia, Spain, Switzerland, and Tunisia, as well as all French and British colonies and possessions. These members revised

their domestic laws to reflect the Berne agreement. In 1896, a revision to the convention took place in Paris, and again in Berlin in 1908. The Berlin revision resulted in a minimum copyright term of the author's life plus fifty years, the revision assimilated translation right into reproduction rights (Seville 2006, 74-75). While the Berne convention and its revisions proved successful in codifying international copyright law. Because of its stance on copyright protection the United States failed to qualify for admission until 1988.

Until the late 19th century the United States government maintained the same stance on foreign copyrights that it had in 1790. The laws and legal system continued to encourage international copyright piracy. American self-interest favored piracy, because Europeans had little demand for American cultural products, while American's had high demand for European culture. International copyright agreements would have hurt American employment and manufacturing, and there were little reciprocal benefits from European recognition of American copyright. American printers, publishers, and booksellers, benefited from piracy of European works. High tariffs on imports or European works, encouraged the local printing of pirated versions. American authors with international reputations such as Henry Wadsworth Longfellow and Louisa May Alcott, lobbied to end this practice. However coalitions of paper producers, books binders, typographical unions, printers, publishers, and others associated with the book trade spoke out in favor of the piracy, and the business that it created (Khan 2005, 259).

The 1891 Chace Act (or International Copyright Act) finally granted copyright to selected foreign residents. However, the Act granted significant concessions to the American book trade. It required publication in the United States either before or simultaneously with the author's home country. The Chace Act also required publisher to print all international works either in the United States, or with typesetting plates manufactured in the United States. These restrictions still prevented the United States from joining the newly formed Berne Convention (Khan 2005, 260).

10. Technological challenges to copyright in the Twentieth Century

During the Twentieth Century, the duration of American copyright expanded several times. The Copyright Act of 1909, doubled the previous term of copyright from 1790. Authors could copyright works for a term of twenty-eight years, with a renewal of an additional twenty-eight years. The 1976 Copyright Act extended protection to either 75 years for corporate works, or the life of the author plus fifty years. The 1998 Copyright Term Extension Act extended all copyrights for twenty years, corporate copyrights now have duration of 95 years after publication or one hundred and twenty years after creation, whichever is earlier, and private works are the life of the author plus seventy years. The government created these extensions to protect copyright as technology for duplication advanced. Many in the public saw 1998 Act as a service to corporations going so far as to colloquially call it the "Mickey Mouse Protection Act"' due to the fact the popular cartoon

mouse owned by Disney would have entered the public domain in 2003, without the intervention of the Act.

Early in the twentieth century, the creation of radio broadcast technology led to conflict between radio stations and copyright owners. Holders of music copyright formed a collective licensing society the ASCAP, to deal with licensing performance rights to radio stations. Radio stations refused to purchase licenses on the grounds that their broadcasts were not public performance for profit which would have been an infringement under the 1909 copyright statute. Radio stations argued "they did not charge to hear the music" and since broadcasts were received in listeners homes, they were not "public". They even argued that they were helping the music industry by promoting sales of sheet music and sound recordings of songs. Courts still considered these transmissions to be public, as radio stations were broadcasting *to* the public even though distance separated the listeners over many households (Ginsburg 2001, 1621). In a case concerning hotels rebroadcasting radio transmissions throughout the hotel over loudspeakers Justice Louis Brandeis remarked "While this [from of exploitation] may not have been available before the development of radio broadcasting, the novelty of the means used does not lessen the duty of the courts to five full protection to the monopoly of public performance for profit which Congress has secured to the composer" (Ginsburg 2001, 1621).

The twentieth century had tremendous advancement in duplication and production technology. Economically feasible photocopying became available early in the century. This technology opened piracy

and free riding to the general public. Prior to photocopy technology, the average consumer could not duplicate books at a cost smaller than the prices of books themselves. While pirates who created cheap reprints possessed technology to do to this, there were substantial fixed costs in purchasing the equipment to do so. By 1934 Robert Binkley, the Chairman of a Joint Committee on Materials for Research anticipated "within the next year film copies of books will be very much cheaper than the normal prices of the books themselves"' (Adelstein 1985, 256). Binkley preemptively negotiated with W. W. Norton, President of the National Association of Book Publishers, creating a "Gentleman's Agreement" to ensure that photocopying for scholarly excepts, previously transcribed by hand, would not be considered a violation of copyright. Duplication for profit or as a substitute for purchase was forbidden, but single photocopies "in lieu of loan ... or in place of manual transcription and solely for the purpose of research" were recognized as fair use (Adelstein 1985, 227).

The invention of the Xerox process in 1950, made copying faster, easier and cheaper. Publishers attempted to use new printing technology to combat the increases in copying technology. Since early Xerox machines could not duplicate certain colors, publishers printed some copyrighted material with special dyes containing these colors. They hoped this would make copies illegible. However Xerox technology continued to improve moving past this limitation (Adelstein 1985, 228). Xerox machines spread quickly, and by 1970 thousands of libraries possessed them. Large research libraries subscribed to thousands of scholarly

journals. With the availability of free duplication technology, libraries became secondary producers of intellectual goods. Xerox technology allowed libraries to "lend"' an infinite number of copies with no limitation on length of time. Duplication at libraries offered permanent access to knowledge and ideas for significantly less cost than it did for users to acquire the original works. Libraries resisted attempts by publishers to establish royalty plans to charge on a per page copied basis, citing the benefits to research and knowledge (Adelstein 1985, 229). The original language of copyright that promoted the advancement of science above concerns of authors or publishers rights, would support this argument.

Library duplication led the Williams and Wilkins Company, a publisher of medical journals, to sue the National Institute of Health and the National Library of Medicine for infringement. This resulted in the 1973 case *Williams and Wilkins Co. v. United States*. The Court of Claims decided in favor of the United States libraries, using historical precedent to back their decision. The decision cited the fact that Library of Congress permitted the photography of copyrighted works for personal use from 1906 to 1939. They also cited Binkley's "Gentleman's Agreement" of 1935, and the fact that publishers had not sought to contest copying for a significant period of time (Adelstein 1985, 229).

> The fact that photocopying by libraries of entire articles was done with hardly any (and at most very minor) complaint, until about 10 or 15 years ago, goes a long way to show both that photoduplication cannot be designated as infringement *per se*, and that there was at least a time when photocopying, as then carried on, was 'fair use'

> ... [T]he libraries can properly stand on the proposition that they photocopied articles for many years, without significant protest, and that such copying was generally accepted until the proliferation of inexpensive and improved copying machines, less than two decades ago, led to the surge in such duplication. The question then becomes whether this marked increase in volume changes a use which was generally accepted as 'fair use' into one which has not become 'unfair' (Adelstein 1985, 229).

While the majority cited historical precedent, the decision to allow Xerox copying in libraries seemed to be a major change in the treatment of copyright. While the law historically allowed copying in libraries, this decision appeared to allow libraries to exist as full scale secondary producers of academic journals. However in some ways, the ideas from Binkley's Gentleman's Agreement refute this. Binkley argued that photocopying was not a substitute for purchase of the articles themselves, but a replacement for time consuming hand copying and transcription. The consumers of the Xeroxed journal articles would not necessarily have purchased the journals directly from the publishers to begin with. In this case, the Xerox process may not have been a substitute for purchase, but rather it merely reduced the number of trips to the library and amount of time spent copying. The decision did not affect the purchases that libraries made from publishers and the benefits this system had to the public potentially encourage libraries to stock more copies of journals. Xerox technology served to aid research and the spread of knowledge, and in that sense it helped libraries improve their functions.

Like Xerox technology, home video recording technology allowed users to duplicate intellectual goods, in this case television broadcasts. In 1976 Universal City Studios and Walt Disney Productions, began a legal campaign against the Sony Corporation, the maker of the popular Sony Betamax video recorder. The film studios targeted Sony due to the difficulty and costs involved in tracking down and suing each individual who used the technology. At this the United States Congress was finishing the 1976 revision of copyright law and would be hesitant to include new protections for the film industry, so a legal course seemed to be the best option for the Studios. The Studios sought to create a royalty scheme for the sale of each Betamax, to offer compensation for the use of their protected works. After several reversed decisions in lower courts, the case made its way to the Supreme Court as *Sony Corp. v. Universal City Studios* in 1984 (Adelstein 1985, 231). In a 5-4 majority, the court decided in favor of Sony. The majority opinion stated that contributory infringement could not be found for a technology that is " capable of substantial noninfringing uses" (Adelstein 1985, 232). They also decided the practice of recording a program for the purposes of viewing it once later and then erasing it, was fair use as it did not harm the Studios (Adelstein 1985, 232). The dissent felt the majority should have looked into the impact of the videotape recorder on new markets for television programming, not just the existing markets. However, ultimately the Studios did benefit from this technology as the video rental market developed and boomed throughout the late eighties and the nineties (Ginsburg 2001, 1624).

In 1992, Congress created the Audio Home Recording Act to protect the music industry from digital audio recording media. Copyright owners sought to avoid a repeat of the *Betamax* decision by making a distinction between analog and digital copying. They argued digital recording would harm sales of authorized recordings, because they could make perfect multigenerational copies of recordings, where as analog copies sacrificed quality for each step they were removed from the original. By working with Congress and not calling for a ban on digital recorders, the copyright holders were able to implement some restrictions. The law permitted distribution of digital audio recording devices only if a statutory royalty was paid for each piece of equipment sold, and the devices could only record a first generation copy. Conceding the right to make private digital copies, the copyright owners gained control over the copying of all subsequent generations through the creation of the Serial Copy Management System. The 1992 act mandated this technology and it prevented further copying from any copy made of a recorded work. To prevent a technological "arms race" to create SCMS circumvention techniques, Congress prohibited SCMS breaching technology from being sold (Ginsburg 2001, 1628).

The 1998 lawsuit *RIAA v. Diamond Multimedia*, was a case in the Ninth Circuit Court of Appeals where the Recording Industry Association of America sought to prevent the manufacture and sale of the Rio portable MP3 player. The Court interpreted the statutory copyrights very narrowly, because they felt the copyright owners were attempting to stop technological progress. The RIAA claimed the Rio violated

the 1992 Audio Home Recording Act, because it was a "digital audio recording device" that did not incorporate the Serial Copy Management System required. The initial court decision stated that Diamond, the makers of the Rio might be obliged to pay a statutory royalty for each machine sold, but that SCMS was unnecessary because the device could not make serial recordings. When both sides appealed the Ninth Circuit held that the Rio was not a "digital audio recording device" and did not have to pay royalties or incorporate SCMS as it did not fall under the statute at all(Ginsburg 2001, 1625).

Technological progress altered the balance of control between users and distributors. The photocopier made it possible for consumers to acquire intellectual goods without purchase or borrowing. Audio and video recording allowed users to view and hear works which had only been available through scheduled broadcasts. These technologies allowed the public to access the intellectual good they wanted, not what the media chose to broadcast (Ginsburg 2001, 1616). The invention of new technology can lead to two categories of legal challenges. In some cases, the technology creates new methods to distribute copyrighted material, and the owners seek to benefit from the new technology and "get in on the action" so to speak. The new technology might compete with the previous modes of distribution. An example of this is the radio broadcast of copyrighted music. Some saw radio broadcasts as a substitute to physical music records. However, the owners of musical copyright were able to use radio technology to gain popularity and profit from its use of their works. The willingness of the music industry

to work with the government in the 1992 Audio Home Recording Act also appears to be an example. The other category of legal challenge occurs when copyright owners seek to prevent the spread of new technology to the public, rather than use it. The Xerox, Betamax, and Rio MP3 player disputes fall under this category. While the first type of case was usually favorable to copyright owners, this second type of case was not (Ginsburg 2001, 1619). In each case legal institutions took new technology into account, even requiring the use of protective technology in the case of SCMS. The approach of the copyright holder towards new technology, either to utilize or to seek to prohibit, had an effect on how the legal institutions responded. The law sought to allow science to continue to progress, and benefit the general public at the same time as protecting copyright, royalty arrangements and other agreements were more conducive to this end than banning technology.

11. The Digital Millennium Copyright Act and the Internet

The Internet affected copyright differently than previous technological advances. Rather than a discrete innovation, the Internet was a whole new system of communication and data transmission. Congress's Digital Millennium Copyright Act did not focus on consoling copyright owners, but to promote a new exercise of copyright and to adjust copyright rules in response to the new technology before major issues could arise. The DMCA focused on both the new technologies impact on old markets, and the role of the new technology in creating

and spreading new markets. The DMCA protects measures protecting access to copyrighted work against circumvention, and prohibits devices designed to circumvent measures protecting copyright owners against copying, adaption, distribution, and public performance or display. Fair use and other defenses remained available in regards to the second provision, but no such defense was available for circumvention methods to access copyrighted material (Ginsburg 2001, 1631).

The existence of access controls made digital media significantly different from earlier technology, because these access controls could prevent the user from accessing the good more than a certain amount, could prohibit making private copies more than a set number of times, or prevent users from placing the good on multiple computers. The legal protection of these access controls give the copyright holder direct access to the user, and they can control how much the user can experience the good (Ginsburg 2001, 1632).

Did the DMCA's protection against circumvention technology restrict the expansion of science and new technologies too much? Or was it an appropriate protection of copyright, depending on the future of electronic commerce via the Internet? If electronic copies eventually eliminate the market for hard copies, then the DMCA measures were merely a preemptive institutional change to maintain the incentives to create and distribute intellectual property, just as the law has being doing for centuries. The DMCA happened to be one of the only measures that adjusted the institution before the new technology took full hold.

In this case, the prevention of circumvention technology fulfills the intended purpose of the law, to disable unauthorized copying (Ginsburg 2001, 1634).

However, the DMCA allows copyright owners to control access to a work in general, rather than just a copy of the work. This limits use of the work even when it has been lawfully acquired, and violates the idea of "first sale"' which had protected the right of the purchaser to do what they wanted with intellectual property they acquired, including resale on the secondhand market when they do not wish to access the work any further. Access controls could be persistent, meaning a user might need to enter a password for each use. Access controls could also be used to place a "thin"' copyright, a copyright protecting the arrangement of the work and not the work itself, on material in the public domain. This would give owners significantly more control over users (Ginsburg 2001, 1635). To prevent copyright owners from exploiting access technology, Congress gave the Librarian of Congress authority to declare what classes of works that access controls would compromise non-infringing uses. The Copyright Office has the ability to create more exempted classes of works, should copyright holders go too far in preventing access to certain works (Ginsburg 2001, 1636).

The Internet also challenge existing institutions by providing an environment where individuals could share digital goods across the world. *A and M Records, Inc. v. Napster, Inc.* was one of the most significant court cases against Internet file sharing. The Napster website facilitated the copying and distribution of MP3 files from one users hard

drive to another, by peer to peer "Music Share" software, and hosting a central searchable directory to access these works. The lawsuit reached as far as the Ninth Circuit. The court concluded that the peer to peer file sharing technology offered a valuable means of communication and should not be jeopardized, but found a distinction between Napster's system architecture and Napster's conduct relating to its operations, finding the later to be in violation of copyright. The district court distinguished this from the *Betamax* case Napster was unable to demonstrate is was capable of commercially significant non-infringing uses, and was aware that its users were copying pirated works. The Ninth Circuit Court decided that the peer to peer technology did and could have more future non-infringing uses and they found Napster to be violating copyright because artists and music companies had notified Napster that specific infringing material was available through their system. The Court affirmed that copyright owners bear the burden of notifying Napster, or other systems, when infringing files exist in their system. Once notification occurs, it is Napster's responsibility to exclude these files. In the *Betamax* case, once retailers sold a Betamax machine, Sony had no way to determine if users infringed copyrights with the technology. In the *Napster* case the same technology that allowed users to search for copyrighted material, allowed copyright holders to search and discover if infringement was occurring and to notify the file sharing services to remove the material (Ginsburg 2001, 1641).

In their 1985 paper, Adelstein and Peretz created a model in which intellectual goods function similarly to a public good. They imagined a world in which memory is perfect for all individuals, and all individuals can read each other's minds at will. As with a public good, the idea's creator has no way to limit distribution, since customers can reproduce the good without cost. Supply is perfectly elastic and the price would always be zero, since duplication is costless. The creator of the idea would not be able to exclude anyone from accessing the idea, allowing the possibility of unlimited free riding; so in this model there is no chance to recapture production costs (Adelstein, 1985, 218). Therefore, in this model, there would be no pecuniary incentive to create; the only incentive to create would come from a desire to create and share. In this model, intellectual goods would not entirely behave like public goods. While individuals can usually obtain public goods only from the good's producer, this model would allow individuals to obtain goods from anyone who has used the good(Adelstein, 1985, 218). Intellectual goods in this model have a marginal cost of zero to supply the good to additional customers, as is true for public goods; however, the marginal benefit to a consumer for consuming the same intellectual good multiple times is also zero because of perfect recall. Although Adelstein and Peretz's model had no real world equivalent when they wrote their article, peer to peer file-sharing mirrors their model, although it is generally not the original creator of the intellectual good who introduces the good into the file-sharing network.

The Internet has also served to store a vast amount of human knowledge. In 2004, Google began to digitize works in the public domain and some works under private copyright through partnerships with libraries and authors, reaching seven million searchable books by October 2008. Before Google embarked on this project many works were out of print but still under copyright. Individual could only obtain many of these works through libraries, or with luck, at a used books store. After reaching a settlement with publishers, Google Book Search project began to digitize most books published in the United States. This project enables the public to access and purchase works that would not have been otherwise available, and authors and publishers to receive revenue for out of print works that are purchased (Lemley 2009, 2). This system takes advantage of the scope of the Internet to distribute a widespread and useful service benefiting users, copyright holders, and the advancement of learning and science, apparently finding the balance that legal institutions have often sought.

12. Conclusion

There has very rarely been one definitive copyright. Copyright laws change and develop with each generation. Lawmakers and courts seek to maintain balance the rights of copyright owners to protect their work and to collect rent from its use, with the promotion of the general utility of the public and the advancement of science. Technology changes this balance forcing legal institutions to change and adapt to new methods of production and duplication, such as printing presses, photography, Xerox, and video and music recorders, and new methods of distribution

and access, such as radio and television broadcasting and the Internet. Therefore most changes in the institution of copyright favor stronger protections to combat the affects of new technology. The strength of copyright laws have varied between countries. The Enlightenment idea of human rights emphasized the rights of the owner in European law. However, the language in the American Constitution concerning copyright and intellectual property emphasized the advancement of science and knowledge in the general public of the United States, and offered no protection to foreigners. As new technology was created throughout the 20th century and legal institutions changed, American copyright law began to offer more protection to the copyright holder. Congress created the additional protections and extensions to copyright holders to balance the effect of new technology. These twentieth century copyright reforms brought American copyright protection in line with the international community. America finally joined the Berne Convention in 1988, one hundred years after it was created.

With the rise of the Internet, copyright law is poised to continue to grow and evolve. The Digital Millennium Copyright Act attempts to anticipate problems that could arise, but no law is clairvoyant. Online business models for distribution of intellectual goods have proved successful for many companies. The success of Apple's iTunes store showed that customers would pay to legally acquire inexpensive digital music, even in the wake of file sharing from Napster and other peer to peer networks. Google books search has adopted adopted a similar model to iTunes, allowing users to pay a small fee to acquire the work

they want from a large database. The corporations working with these distribution models have been successful both financially and legally through their willingness to work with and promote new technology, rather than seeking to prevent it.

Arguments for or against copyright laws can be generalized into two specific camps. One one hand there have been those who favor expansion of copyright to encompass all present and future creative works to allow producers to collect as much value as they can from the intellectual goods they are helping to produce. On the other hand there are the minimalists who favor only enough protection to provide creators continued incentive to create. These two positions are diametrically opposed. As can be seen from the history in this paper, any revision in copyright law must favor one position over the other. Generally, changes in the law favors those who would like a more comprehensive copyright system because the law responds to the creation of new technology which undermines existing copyright. While some new technology such as special inks and digital rights management software has served to protect intellectual property, the vast majority of new printing and copying technology facilitates the duplication and distribution of intellectual goods to individuals with little or no rent returning to the producer. Over the past century copyright terms have been extended repeatedly in the United States, in response to an increase in the availability and quality of duplication technology.

Christopher Yoo's approach to this debate discussed earlier uses the concept of the "Samuelson Condition" to imply that, when producers

can vary the quantity of a public good they produce, producers only need to appropriate the marginal benefit, rather than total benefit resulting from increases in production. Since this would mean the consumer would also reap some benefit Yoo's approach seems to reach a middle ground that is more optimal than the strict legal trade-offs of the current system.

Currently intellectual goods are considered to be similar to public goods, in that they are both non-excludable and non-rival. However, non-excludability is not necessarily always a characteristic of public goods. While a lighthouse may be seen as a quintessential non-excludable public good, Conley and Yoo suggest that the lighthouse could install a lamp outside the visible spectrum and give only ships that had subscribed to its service the equipment to detect the broadcast (Conley and Yoo, 2009, 1806). They use this to suggest that non-excludability is technological, rather than intrinsic to the concept of a public good. When applied to intellectual goods and copyrighted material this example is similar to how digital rights management technology is being used.

Similarly, the non-rivalry of intellectual goods may not be absolute either. Non-rivalry is traditionally modeled by assuming that once the author incurs the fixed costs necessary to produce the first copy of a work, the work can be costlessly reproduced an infinite number of times. This assumption implies the marginal cost of additional copies is zero. Since the social benefits of producing additional copies outweigh the social costs when the marginal cost is zero, there is an economic

argument to produce more. Efficient pricing sets price equal to marginal cost, which in this case is zero. A price of zero would prevent fixed costs from being recovered, while charging prices greater than marginal cost would create a deadweight loss (Conley and Yoo, 2009, 1807). Here once again is the ever present tension between producers and consumers in regards to copyright law. Conley and Yoo point back to Samuelson's approach, stating "institutional mechanisms that permit public goods to be priced at marginal cost are not sufficient to solve the problem" (Conley and Yoo, 2009, 1808).

Conley and Yoo conclude that when goods are divisible (which means producers can vary the quantity of a public good they produce), producers only need to capture the sum of the marginal benefits that consumers derive from the public good, allowing consumers to retain some of the surplus. However when public goods are indivisible, as is often the case with intellectual goods since one can either write a book or not write a book, a system where producers appropriate the entire surplus is a sufficient condition to achieve an optimum solution, but is not a necessary condition. Other solutions that do not require perfect price discrimination could exist. In these alternative equilibria consumers could potentially retain some of the surplus if the "producer is able to charge individualized prices calibrated to the precise benefit each consumer derives from the public good" (Conley and Yoo, 2009, 1829).

The information necessary to achieve the price discrimination that Conley and Yoo discuss, requires more complex models, and makes

results difficult obtain without comprehensive information on the specific nature of demand for intellectual goods. Since the system where producers appropriate the entire surplus is an optimum for producers, there does not appear to be incentive for the producers themselves to attempt to use any information they have concerning consumer demand to create the models that Conley and Yoo discuss. It also does not appear likely that a change in the system will arise through a change in legal institutions. As this paper has shown, changes in the copyright law have been largely reactive, and have been driven by disputes that arise through increases in duplication technology and increases in the ability of individuals to pirate and distribute works. Although producers have found technological solutions (such as digital rights management software) to the the problem of non-excludability, new technological developments still largely favor those who wish to breach copyright. As such, there does not appear to be any momentum for legal institutions to search for alternative optimal solutions that give more favor to consumers. Instead it seems likely that legal institutions will continue to respond to technological increases with laws that impose tighter copyright restrictions. There has not, and will not be, a definitive copyright law. Copyright law will continue to change and adapt to advances in technology and the needs of the times.

References

[1] Adelstein, R.P. and S. I. Peretz, "The Competition of Technologies in the Markets for Ideas: Copyright and Fair Use in and Evolutionary Perspective" (1985) *Review of Law and Economics* Vol.5 Issue 2 209-238

[2] *Annals of the Four Masters*, year 555.2
http : *//www.ucc.ie/celt/published/T*100005*A/index.html*

[3] Conley, John P. and Yoo, Christopher S., "Nonrivalry and Price Discrimination in Copyright Economics." *University of Pennsylvania Law Review*, Vol. 157, Pg. 1801, July 2009; U of Penn, Inst for Law and Econ Research Paper No. 09-17; U of Penn Law School, Public Law Research Paper No. 09-13. Available at SSRN: http://ssrn.com/abstract=1407577

[4] David, Paul A. "The End of Copyright History?" *Review of Economic Research of Copyright Issues*, 2004, Vol. 1(2), pp 5-10

[5] Feather, John. "From Rights in Copies to Copyright: The Recognition of Author's Rights in English Law and Practice in the Sixteenth and Seventeenth Centuries," *Cardozo Arts and Entertainment Law Journal* Vol. 10 no.2 (1992) pp 455-473

[6] Ginsburg, Jane C. "Copyright and Control Over New Technologies of Dissemination," *Columbia Law Review* Vol. 101 No.7 (2001) pp 1613-1647

[7] Khan, B. Zorina, *The Democratization of Invention: Patents and Copyrights in American Economic Development 1790-1920* Cambridge University Press, Cambridge UK, 2005.

[8] Lemley, Mark A., An Antitrust Assessment of the Google Book Search Settlement(July 8, 2009). Available at SSRN: http://ssrn.com/abstract=1431555

[9] Raven, Francis. "Copyright and Public Goods: An Argument for Thin Copyright Protection." M/C Journal 8.3 (2005). 12 Oct. 2009 ¡http://journal.mediaculture.org.au/0507/06-raven.php¿.

[10] Rose, Mark. "The Author as Proprietor: Donaldson v. Becket and the Genealogy of Modern Authorship" *Representations* Vol. 0 Issue 23 Summer 1988 51-85

[11] Scherer, F. M. "The Emergence of Musical Copyright in Europe from 1709 to 1850" *Review of Economic Research of Copyright Issues*, 2008 Vol. 5(2) pp. 3-18

[12] Seville, Catherine. *The Internationalisation of Copyright Law: Books, Buccaneers and the Black Flag in the Nineteenth Century* Cambridge University Press, Cambridge UK, 2006.

[13] Stern, Simon. "Copyright, Originality, and the Public Domain in Eighteenth Century England" *Originality and Intellectual Property in the French and English Enlightenment*, Reginald McGinnis, ed., pp. 69-101, Routledge, 2008.

[14] Yoo, Christopher. "Copyright and Public Good Economics: A Misunderstood Relation" *Law and Economics Workshop* University of California, Berkley, 2007.

Department of Economics, University of Connecticut, Storrs, CT 06269, U.S.A.

E-mail address: kevin.liftig@huskymail.uconn.edu