“All That Is Solid Melts Into Air”: The History Of Copyright As A Form Of Industrial Regulation And Its Disorientation In The Age Of Information

Nikolaos Volanis
Lawyer – Associate
Ballas Pelecanos & Associates L.P.C.
[e] nicholas.volanis@balpel.gr
[w] www.ballas-pelecanos.com

Abstract

Amidst this debate over the role of copyright legislation in the age of networked information economy, we attempt an examination of the interrelationship between copyright policy and legislation and the methods of cultural production in the past, so as to compare it with the trends and objectives of copyright law-making and policy today, taking into account the impact of digital networked technologies on consumption and production of cultural goods. For this aim, our paper is divided in the following parts: a. to examine whether the assertion that copyright protects the rights of authors is consistent with the very origins of copyright legislation in Europe and the US; b. to consider how copyright regulation in the 20th century was amended to fit the established industrial processes of intellectual production; and c. to estimate whether the “copyright bargain” between the owners of information and society is still maintained, in light of changes to the model of intellectual production in the 21st century.

1. Introduction – Of “wars” and “pirates”

"Intellectual Property is the oil of the 21st century" - this quote by Mark Getty, chairman of Getty Images, one of the world's largest owners of intellectual property, presents an acute view on the current tension regarding intellectual property, particularly copyrights and patents. Not only does it present the crucial importance of informational assets in a knowledge-based economy, but it also alludes to the wars that have already been and will continue to be fought over ownership and appropriation of intellectual resources which are essential in a society. Some of those are named the “copyright wars”, which pertain to the “war” on “piracy,” which “threatens” the “survival” of certain important content industries [Lessig L., 2008, p. xvi]: After all, one cannot forget the aphorism by the former head of the Motion Picture Association of America, Jack Valenti, that he is fighting what he called a “terrorist war” against “piracy.”[Harmon A., 2002]

The selection of the word “war” seems not to have been made at random by the content industries. As Professors George Lakoff and Mark Johnson describe, every appearance of this word produces a “network of entailments”, which frame and drive social policy. Going to war means *“setting targets”, “reorganizing priorities”, “gathering intelligence”, “marshaling forces”, “imposing sanctions”, “calling for*

sacrifices", etc.. *"The WAR metaphor* […] *was not merely a way of viewing reality; it constituted a license for policy change and political and economic action. The very acceptance of the metaphor provided grounds for certain interferences: there was an external, foreign, hostile enemy* […]; *energy needed to be given top priorities; the populace would have to make sacrifice* [Lakoff G., and Johnson M., 1980, p. 156-57]

In this context, "wars" have been "waged" on the copyright battlefield, on the issue of how should law and policy regulate the interests of the creators of information vis-à-vis the interests of society. In general, the key assumption that sustains copyright law is that authors have a natural right over their works of intellectual labor, and copyright protection is required to provide an incentive to create intellectual works. In the absence of a system like copyright, it is argued, there would be no incentive for authors to produce and hence creativity and art will gradually diminish and decline. Moreover, copyright is based on a balance between the protection of authors, on the one hand, and the interests of the public, on the other (the so-called "copyright bargain"). For example, since excessive protection may result in curbing the ability of the public to use works, copyright protects only unique expressions and not ideas per se and it is also provides a limited term of protection. Within these limits, any person who uses the works of another person's intellectual labor without permission is infringing that person's exclusive rights.

Facing the heated debate over the role of copyright in the era of digital network environments, people today tend to think of the aforementioned "war" as a new event and as a consequence of the rapid digitalization of knowledge. However, "wars" for ownership over information appear throughout the course of history in a recurring cycle. A cycle which reveals itself at specific intervals of societal evolution, when the introduction of a disruptive technology challenges the established privileges of certain groups, who at the time have acquired control of the means of information production. This pattern first became apparent with the introduction and spread of the printing press in the 1500s, but it reemerges whenever a new and disruptive technology offering unprecedented capabilities for creation and production of cultural materials is introduced: the introduction of player pianos, gramophone, radio, television, VCRs, MP3 players, and, of course, the Internet, are only examples of such technology, each one prompting a reconsideration of copyright policy, legislation or case law, in order to figure how the changes in technology will be transfigured into acceptable social or legal norms.

Amidst this debate over the role of copyright legislation in the age of networked information economy, we attempt an examination of the interrelationship between copyright policy and legislation and the methods of cultural production in the past, so as to compare it with the trends and objectives of copyright law-making and policy in the present, taking into account the impact of technological innovation of our time. For this aim, our paper is divided in the following parts: a. to examine whether the aforementioned assertion that copyright protects the rights of authors is consistent with the very origins of copyright legislation in Europe and the US; b. to consider how copyright regulation in the 20th century was amended to fit the established industrial processes of intellectual production; and c. to estimate whether the aforementioned "balance" between the owners of information and society is still maintained, in light of changes to the model of intellectual production in the 21st century.

2. Copyright and the printing press

2.1 Censorship and control of knowledge in 16th century Europe

Before the spread of printing press in Europe in the 1500s, information was highly scarce and relatively easy to control. For thousands of years and until then, the scribal culture essentially handpicked the people who were given the code and tools to transmit knowledge across time and space [McLuhan M., 1962, p.98]. It was an economy of scarcity, ending up in intellectual starvation of the masses, as the book was perceived as a rare artifact, capable of containing knowledge (sometimes sacred or even forbidden). The understanding of the empowering effect of such knowledge to a potential reader of a book often led the owner of the book to be very careful in allowing others to gain access to its content. Indeed, images from the 16th century depict chained -even guarded- books, because of their secrets contained in their pages.

The printed book marks the beginning of the process of industrialization of information. Printing brought forth the potential and hope for abundance of information, threatening the control over knowledge due to scarcity. However, technological revolutions are not always accepted by society or by authority. Instances wherethe printed book was perceived as the work of the devil was not unusual. Daniel Dafoe [1727, p.378] informs us of Gutenberg's partner Johann Fust ("Faustus") arriving in 15th century Paris with a wagon loaded with printed bibles. When the bibles were examined, and the exact similarity of each book was discovered, Fust was accused of black magic. Moreover and beyond reasons of religious disbelief, most emerging nation states of Europe considered printing a potentially revolutionary activity, and made it very clear that they would control information flow to their best of their ability [Johns A., 2010, p. 8]. The printers were hunted down for printing forbidden documents, even more vigilantly than the authors of the texts. In this context, as printing technology developed, its pivotal social role became clear. It becomes associated with emancipation and the questioning of authority. With this in mind, William Berkeley, Governor of Virginia was writing to his overseers in England in the 1670s century saying "*I thank God, there are no free schools nor printing [in Virginia]; for learning has brought disobedience, and heresy* […] *and printing has divulged them, and libels against the best government. God keep us from both*" [Liehnhard, J. 1988]. This his reaction to the English Civil War (during which a proliferation of hundreds of published polemical texts occurred and came to be known as the "Pamphlet Wars", where the distributed pamphlets were called "paper bullets" [Weber H., 1996]).

Similarly, the basic idea of censorship in 18th century France is based on a concept of privilege, a license granted to a printer to publish a particular text that is denied to others. What was established was a centralized administration for controlling the book trade, using essentially censorship and the monopoly of the established publishers. The state made sure that the books which were printed for distribution in their societies were authorized editions and within the control of the state, the church or both [Pottinger D., 1958, p. 55*etseq*].

Even so, this control was eventually incapable of controlling the spread of revolutionary thought. Parallel systems of distribution started to emerge as publishers

and printing presses began to surround France, producing books which were smuggled across the French borders, distributed everywhere in the kingdom by an underground system [Danton R, 1996]. Needless to say, that many of these book smugglers (or "pirates") included prominent members of the Swiss or Dutch bourgeoisie merely acting on the basis of doing business and satisfying demand in the absence of an international system of copyright law; moreover, as this shadow trade was totally unregulated and affected only by the law of supply and demand, it is no wonder that most books contained political or pornographic material. As this expansion of the printing word takes over Europe and France, we note the emergence of a new reading public, not subject to the same norms of pre-approval and authorization.

2.2 Origins of copyright in France and the UK

It is in this context of censorship and control that the first regulatory attempts to control the flow of information are made, by the Church (the first version of *Index Librum Prohibitorum* – a list of books prohibited by the Catholic Church – was promulgated by Pope Paul IV in 1559), the State, or both. Their attempts aimed to regulate and control the output of printers, through censorship and accountability, by introducing a system of privileges and by requiring printers to have official licenses to produce books. These licenses normally gave a printer the exclusive right, in the territory of the State where the license was granted, to print particular works for a fixed period of time [MacQueen H. *et al.*, 2007, p. 34].

The aforementioned licensing mechanism operated in conjunction with two other devices: registers and patents. In England, for example, the printers and booksellers (called "Stationers" at the time) formed a guild, the "Stationers' Company", which in the 16th century was given the power to require the entry in its register of all lawfully printed books, which were printed entirely and exclusively by the guild's members. A secondary purpose of such control was also to uphold the reputation of the craft community: Contests over particular editions could be resolved by booksellers and printers, by reference to these registers. In some cities, entries in registers became secure enough to act as de facto properties, enduring for throughout the 17th century [Johns A, 2010 p.11]. Indeed, the Licensing of the Press Act of 1662 (which provided that printing presses were not to be set up without notice to the Stationers' Company), although it was originally limited to two years, it was renewed until 1695 [Deazley R, 2006, p.13].

Patents (in full "letteraepatentes"), on the other hand, were legal instruments in the form of an open letter (that is, which was both mailed to a person it addressed, and publicized so that all are made aware of it) from a ruler – as a royal prerogative - granting an office, right, monopoly or title to a beneficiary. In every respect, this kind of privilege was equivalent to one granted for mechanical inventions, for newly imported crafts, or for a monopoly in a trade. [Johns A., 2010, p.11]. With the advent of the printing press, they were sought to protect titles from unauthorized reprinting.

In pre-Revolutionary France, royal privileges were exclusive and usually granted to the printers for six years, with the possibility of renewal [Dawson R., 1992, pp.7-10] The French Booktrade and the "Permission Simple" of 1777: Copyright and the Public Domain, 1992, pp7-10). Over time, it was gradually established that the owner

of a royal privilege has the sole “right” to obtain a renewal indefinitely [Yu P., 2006 p.141]. Although initially the specific privileges where granted solely to the printers, in 1761 the Royal Council awarded a royal privilege to the heirs of an author rather than the author's publisher, sparking a national debate on the nature of literary property. In 1777 a series of royal decrees reformed the royal privileges. The duration of privileges were set at a minimum duration of 10 years or the life of the author (whichever was longer). If the author obtained a privilege and did not transfer or sell it on, he could publish and sell copies of the book himself, and pass the privilege on to his heirs, who enjoyed an exclusive right into perpetuity [Dawson, 1992, pp. 7-10]. If the privilege was sold to a publisher, the exclusive right would only last for the specified duration. The royal degrees prohibited the renewal of privileges and once the privilege had expired anyone could obtain a "permission simple" to print or sell copies of the work. As a result, the public domain in books whose privilege had expired was expressly recognized [Yu, K., 2006, p.141]. After the French Revolution the National Assembly abolished the privileges. Anyone was allowed to establish a public theatre and the National Assembly declared that the works of any author who had died more than five years ago were public property. In the same degree the National Assembly granted authors the exclusive right to authorize the public performance of their works during their lifetime, and extended that right to the authors' heirs and assignees for five years after the author's death. The National Assembly took the view that a published work was by its nature a public property, and that an author's rights are recognized as an exception to this principle, to compensate an author for his work [Yu, K., 2006 p.141].

While the first copyright privilege in England was issued in 1518 for a term of two years, the first formal legal recognition that a reason for conferring exclusive rights to the creator of the work and not the printer of it came with the passage of the Statute of Anne in 1709 in England. The statute was the first to recognize that legal rights flowed from authorship, but it did not provide a coherent understanding of authorship or justification of authors' rights [Bainbridge D., 2006, p. 30]. While the statute established the author as legal owner, and so provided the basis for the development of authors' copyright, it also provided a grandfather clause for the printers, allowing those works already published to enjoy twenty-one years of protection. Moreover, while an additional period of fourteen years was granted to the author, rather than the printer, the legislative intention of benefiting authors was undermined by practice. Given that the statute primarily intended to encourage public learning and to regulate the book trade, any benefits for authors in the statute seemed to be incidental. Furthermore, the primary foundation of the statute is a social *quid pro quo*: in order to encourage "*learned men to compose and write useful books*", the statute guaranteed a limited right to print and reprint those works and the creation of a public domain for literature.

Despite the recognition of a legal right directly to authors, many contracts between authors and publishers purported to assign the whole "*right, title, property and interest*" in the work to the publisher, and, towards the end of the eighteenth century, the courts e.g. in cases *Millar and Dodsley v Taylor* (1765) and *Carnan v Bowles* (1785), treated such contracts as effective to transfer the reversionary term to the publisher. Moreover, when the twenty-one years of the grandfather clause expired, the booksellers of London asked for an extension but the parliament declined to grant it, which prompted the booksellers to turn to the courts, claiming that there was a natural

right to ownership of the copyright under the common law. The result was a decision of the House of Lords in *Donaldson v. Beckett* (1774), where the House denied the continued existence of a perpetual common law copyright and held that copyright was a creation of statute and could be limited in its duration. There was no common law copyright, and therefore no such common law right was impeached by the Statute of Anne.

Throughout the 18th century and particularly during the "booksellers wars", an argumentation emerged that copyright originated in author's rights to the product of his or her labor. This argumentation was further developed at the encouragement of the booksellers, not the authors, as this better suited their purposes and interests in convincing the authorities of the existence of a common law copyright. Thus, it was argued that the primary purpose of copyright was to protect authors' rights, not the policy goal of encouraging public learning [Lee, M., 2006, p. 13]. As a result, and according to Patterson and Lindberg [1991], there remains confusion about the nature of copyright ever since. Copyright has come to be viewed simultaneously from two contradicting perspectives: as a right of the author based on natural law, as well as a statutory grant of a limited monopoly, based on the law and regulation of trade. What Patterson and Lindberg attest, however, is that proprietary authorship, while seemingly a natural right, emerged in fact by the late 17th and early 18th centuries because of the emergence of the London bookselling trade and because of the printing privileges granted to the booksellers. Moreover, Locke's application of natural right theory in the domain of intellectual labor advocated towards the need for protection of copyrighted works, in the form of commercialized ownership: the rights to the books were largely assigned to booksellers [Rose M., 1993]. What emerged from the battle of the booksellers in the 18th century, however, was a concept of a "proprietary author", used as leverage in the struggle between London-based booksellers and the booksellers of the provinces. It is characteristic that in the afomentioned case of *Donaldson v. Beckett*, the entire claim is made in the name of protecting the rights of the author, even though no author was actually involved in the case. In fact, as the counsel for the Scottish booksellers noted during the proceedings of the case "*The booksellers [...] had not, till lately, ever concerned themselves about authors, but had generally confined the substance of their prayers to the legislature, to the security of their own property; nor would they probably have, of late years, introduced the authors as parties in their claims to the common law right of exclusively multiplying copies, had not they found it necessary to give a colourable face to their monopoly*" (available at http://www.copyrighthistory.com/donaldson.html#anm1). Indeed, given that the primary beneficiaries of this new system of knowledge ownership were the booksellers (as the authors would assign their copyrights to them before publication), the concept of authorship simply created a useful euphemism for protecting their rights [Liang L. *et al*, 2005]

Finally, in order to tackle the problem of international enforcement for the protection of copyright works, caused by the exponential inter-state commerce of books and by the absence of an international mechanism to regulate and enforce copyright legislation, states began to enter into negotiations for the mutual recognition and enforcement of foreigners' rights. This evolved in 1886 in the multi-national agreement known as the Berne Convention, for the protection of literary and artistic works.

2.3 Impact on the development of copyright law in the United States – The Copyright Clause as an immigration incentive

The Statute of Anne did not apply to the American colonies, as the colonies' economy was largely agrarian, and copyright law was not a priority, resulting in only three private copyright acts being passed in America prior to 1783. At the Constitutional Convention 1787, proposals were submitted that would allow Congress the power to grant copyright for a limited time. These proposals are the origin of the "Copyright Clause" found in the US Constitution, which allows the granting of copyright and patents for a limited time "*to promote the progress of science and useful arts*". The first federal copyright act, the Copyright Act of 1790 granted copyright for a term of "*fourteen years from the time of recording the title thereof*", with a right of renewal for another fourteen years if the author survived until the end of the first term. With exception of the provision on protection of maps and charts, the Copyright Act of 1790 is copied almost verbatim from the Statute of Anne. Furthermore, in 1834, the Supreme Court ruled in *Wheaton v. Peters* (33 U.S. (Pet. 8) 591 (1834), a case similar to *Donaldson v Beckett*, that although the author of an unpublished work had a common law right to control the first publication of that work, the author did not have a common law right to control reproduction following the first publication of the work. The utilitarian function of the Copyright Clause of the US Constitution was further confirmed by the US Supreme Court in *Fox Film v. Doyal* 286 U.S. 123 (1932), where the court noted that "*The sole interest of the United States and the primary object in conferring the [copyright] monopoly lie in the general benefits derived by the public from the labors of authors*".

Although printing greatly facilitated the propagation of literary and artistic works throughout Europe and over to the United States (which lead to the 19th cent. publishing battles between UK and US publishers), the same was not true for purely technical knowledge. We need to recognize that at the time of drafting of the US Constitution, the primary means of moving technological knowledgeacross the world was to move the brains that contained it [Moglen, E, 2007]. The mere existence of printing did not bear a significant impact on this, particularly with regard to the communication of technological ideas. Indeed, before the appearance of the first tomes of the *Encyclopédie* in France (published between 1751 and 1772), there was no generally available source in the west which provided technical knowledge to the public. The systematic representation and circulation of information concerning technology, enabling people to learn and educate themselves to produce for their benefit in a fashion productive of human self-realization and improved prosperity, is a late arriving idea.

In lack of generally available technical knowledge during that time, it is reasonable to consider that the British North Americans, living in an outpost of that western world at the end of the 18th century, blessed with what looked to them as a vast amount of empty land and a small number of skilled minds, desired vehemently to invite to the US skilled tradesmen, artisans, and those in possession of information in order to improve their agricultural production [Moglen E., 2007]. This idea of encouraging skilled immigration as a development policy has already been conceived before the American revolution: The Dutch and English manor properties in New York and Pennsylvania, for example, were populated by protestants from the part of Europe Louis the XIV destroyed in 1689: the Rhine Palatinate [Schulze L., 1996]. The great

destruction of the Rhine palatinate by Louis the XIV put in motion, along with his revocation of the edict of Nantes in 1685 (issued in 1598 and which granted the Calvinist Protestants substantial civil rights in an otherwise very Catholic France) and the expulsion or enforceable conversion of protestants from France produced an enormous immigration of skilled tradesmen: as many as 400,000 Protestants chose to leave France, most moving to Great Britain, Prussia, the Dutch Republic, Switzerland, South Africa and the new colonies in North America [Morison S., 1972, pp. 220]. In this sense, the Americans began their national experiment on top of an imperial experiment in the importation of skilled hands and minds as a primary economic development policy for their terrain. And to this purpose, the provision allowing the US Congress to pass laws for securing to writers and inventors exclusive rights to their writings and discoveries, for a limited time and for the better dissemination of science and the useful arts, is a provision to encourage skilled immigration to a land lacking intellect. Moreover the argument of using copyright law as a migration incentive complies with the fundamental idea prevalent in US during that time, that monopoly, as a form of royal prerogative and privilege, is inherently intolerable, that government monopoly is a threat to freedom and a danger to constitutional propriety, because it offers an opportunity for the gaining of money outside the democratic dialogue of the republic, and it conceives of the idea of monopolization of new inventions for a limited time as an exception for the public good [Moglen E., 2007].

In the aforementioned context, it should be noted that what seems to be absent in the aforementioned settings is the lack of the notion of intellectual property, as we came to know it today. We don't see in the Copyright Clause of the US constitution any distinction between an idea and its expression. Nor do we see a clear statement that ideas belong to the people who have them because they made them, but only a limited exclusive right "*to promote the Progress and Science of useful Arts*". Indeed, the framers of the US Constitution were rather more likely than not to be learned in the literature of the 18th century and may have read *Tristram Shandy* [Sterne, L., 1759], in which Sterne wonders through his protagonist, when exactly does an idea becomes property of its thinker. By looking at Locke's example of the apple, Sterne goes on to note that the exudations of a man's brains are the same as the exudations of a man's breeches [Chapter 2.XXVII "*That the sweat of a man's brows, and the exsudations of a man's brains, are as much a man's own property as the breeches upon his backside;—which said exsudations, &c. being dropp'd upon the said apple by the labour of finding it, and picking it up; and being moreover indissolubly wasted, and as indissolubly annex'd, by the picker up, to the thing pick'd up, carried home, roasted, peel'd, eaten, digested, and so on;—'tis evident that the gatherer of the apple, in so doing, has mix'd up something which was his own, with the apple which was not his own, by which means he has acquired a property*"]. This parodic sense of a natural right in ideas appears to be common property of the people who wrote the US Constitution and a consequence of a general distrust of monopolies. In this context, it seems the notion of intellectual property in the sense that we are now taught to perceive it as natural, is reflected in the Copyright Clause of the US Constitution, nor it is reflected in the agenda of 18th century publishers. In fact, it appears that that the concept of ideas used in contemporary copyright law, is reflected exactly to the notion of the idea of 18thcentury British empiricism: ideas are the external material to be used by the mind to create knowledge [Leiboff M., 2006]. Ideas, experienced through the senses or the process of reflection based on observations of the material world, are the building blocks of knowledge.

In the light of the foregoing, we note that the underlying concept in framing the Copyright Clause is overtly instrumental and utilitarian: there is a public value in the creation of an opportunity for rewarding those who think, as an exception from a general principle of social justice; the grand of monopolies by the state is wrong, and the only justifying purpose is to provide for social benefit through the creation of limited opportunities for the compensation of thinking, as a motivation for the European thinker to relocate across the Atlantic. In fact, one could recognize the same immigration incentives in the late 18th century copyright and patent law as the US Diversity Immigrant Visa Program of contemporary US law. (also known as the "Green Card Lottery", which makes available 50,000 permanent resident visas annually to persons from countries with low rates of immigration to the United States). And in this sense, if one wants to think of a working legal analog to U.S patent and copyright law made by late 18th century Congress, he might be inclined to consider the Green Card Lottery, than the maximalist expansion of copyrights and patents during the 20th century, such as the patenting of genes, or the 90 years of copyright protection for works that belong to media conglomerates [Moglen E., 2007]

3. From the book to the record, to the film, to the VCR and beyond: the role of copyright in the 20th century processes of cultural production

3.1 Copyright, the work for hire doctrine and the Fordist model of intellectual production

From that world of the printed book as the most popular artifact of commoditized information, we move over the course of the commercialization of electricity and spate of innovation occurring from the 3rd quarter of the 19th century to the end of the 20th, into a world which is flooded with analog artifacts containing information. In this sense the book, is gradually accompanied, and eventually overrun by similar analog cultural artifacts, such as the moving picture, the sound recording, the cassette, the video-cassette, and other articles of available vernacular culture which put an immense amount of information not only at the disposal of the skilled reader but at the doorstep of everyone.

This commodification of information, unprecedented in its magnitude, should also be read in tandem with the great socio-economic changes that started to happen at the start of the 20th century, one of which was the rise of consumerism as a necessary trend to absorb the increase in the production output of western societies. Henry Ford's "conscription" of the workers of the world into consumers signifies an explicit recognition that mass production was dependable on mass consumption [Harvey D., 1991, p. 126] and that this principle horizontally applies horizontally to intellectual production output as well.. Thus Ford's five dollar, eight-hour work day served both to assure compliance with the discipline required to work the assembly line but also to provide workers with sufficient income and leisure time to consume the mass-produced cultural artifacts produced by the corporate content providers (thus pausing the crisis of overproduction of commodities [Harvey D., 2007, p.195]). However, in order to ensure the successful "conversion" of the workers into a new and reliable class of consumers, the new consumers had to acquire taste, needs and preferences, consumerism had to be indoctrinated. In Guy Debord's words, "*Waves of enthusiasm*

for particular products are propagated by all the communications media. A film sparks a fashion craze; a magazine publicizes night spots which in turn spin off different lines of products" [Debord G., 1967, p. 33]. It follows that, the process by which the system of 20th century production learned to avoid the crisis prophesized for it by the thinkers of the mid-19th century, relied on increasing dependence upon consumption fueled by media, which suggest, offer and recommend options for the consuming as well as the producing part of the system of economic relations.

It is in the aforementioned context that copyright becomes, through the work-for-hire doctrine and its relationship to the law of employment, the organizational prerequisite and facilitator for the creation of the 20th century media conglomerates. Once these have come into existence, then any new media that comes along has to be co-opted in the same way in order to maintain the principle of vertical integration. And as technology moved from publishing on paper to radio broadcasting, tv broadcasting, news dissemination, film dissemination, the same dominant model was applied: Somebody makes an article of information, that act creates a property interest, that property interest is transferred through an employment contract and becomes a disposable piece of property in a market economy [Moglen E., 2007]. The exceptions to this model, demonstrated by a number of "successful artists" who "have reached the top", in fact help highlight the norm that the bulk of copyrighted work is owned by media corporations, record companies, movie studios etc. And as analog artifacts began to form this culture, which required industrial processes to produce books, records, films, tv shows etc., the ability of corporate content providers to control the means to produce these artifacts resulted in the ability to control how culture is produced and, more importantly, consumed. Control came naturally as part of the process of the existence of the medium itself [Moglen E., 2007]. Indeed, as Mardsen [2005] notes, Christopher T. Marsden, "Free, open or closed – approaches to the information ecology", Emerald Group Publishing Limited) "*the copyright industries have flourished due to the extremely rapid globalization of a few giants, whose control of vertical value chains from publishing to production to distribution to marketing on a massive scale have enabled total control of their industries*". In fact, in the 1920's and 1930s, there was a sense that the progress toward centralized integrated models was somehow inevitable, simply the norm of industrial evolution. In the time of Henry Ford and other industrialists, it had seemed quite natural, in a Darwinian way, that the big fish ate the little ones until there were only big ones trying to eat one another [Wu T., 2010, p.297]. All the power would thus come to reside in few highly centralized giants, until some sort of sufficiently disruptive innovation came along and changed the game, allow small players to enter the market, and initiate the same Darwinian process of consolidation.

3.2 Differences and similarities in 18th-20th copyright policy considerations

In this sense, copyright law in the 20th century departs from its origins which justified its introduction in the 18th century, and it is used, through the wide-spread adoption of the work-for-hire doctrine, for encouraging the creation of larger, commercial publishing enterprises, which could in turn maintain control over cultural production. However, a differentiation between the 18th century printers and 20th century media conglomerates is apparent: in the age of the printing press, the introduction of copyright law aimed not only to ensure a return on the investment costs of the printers for the making of a printing press; it also aimed to incentivize the printers in selecting

what to print based not only on market demand, but also on the nature of the work. It is at this point exactly where we think that there is a misconception with regard to the "incentive argumentation" evoked by the proponents of maximalist intellectual property laws, at least for the printers, producers other facilitators of the production of cultural commodities: It isn't as it has been sometimes suggested that if there weren't incentives the producers wouldn't print or produce anything at all. In fact, the 18th century printers built presses exactly because they knew that they were going to make money printing *something*; the question is whether what they ought to print is a classical work, somebody's pornographic novel, or somebody's political treatise. In other words, the real question was how to determine what exactly gets made with the scarce industrial means and processes of production. In determining this question, usually the law of supply and demand plays a dominant role: As mentioned above, Robert Danton noticed about 18th century French culture that what flowed into France from the presses of neighboring countries is what the French weren't allowed to make for themselves, that is pornography and political treatises. As counter-balance to the law of supply and demand, copyright law attempted to give to printers a stake in the progress of literature so as to speed the diffusion of knowledge and the useful arts [Moglen E., 2007].

A similar incentive-oriented argumentation could in principle be said vis-à-vis the interests of the authors of the 18th century, but there is much historical evidence to suggest the opposite: The 19th century saw the prolific authorship of literary works in the absence of any meaningful protection afforded to authors by virtue of their copyright [Zimmerman D., 2003]. While copyright protection existed, this protection rarely benefited the author beyond an initial payment for the copyright for their works [Liang L. *et al*., 2005]. This payment, often referred to as an *honorarium*, bore no relationship to the market value of that work, but was rather an acknowledgment of the writer's achievements [Woodmansee M., 1994, p. 42]. In the majority of cases, most of the profits went to the publisher [Bainbridge D., 1999, p. 10] and, on occasion, authors were even asked to underwrite a portion of the publishing costs. It follows that in reality copyright protection usually benefited the publisher, and rarely the author [Calandrillo, S., 1998]. This in fact explains the fervor with which the printers claimed the right of a perpetual common copyright law in the name of the authors, as indicated in the booksellers wars *supra.*

In light of the foregoing, we cannot unreservedly agree with the fundamental analytical proposition put forward by the defenders strong intellectual property laws in our time, as it seems to lack the historical and economical justification of the past two centuries. The claim that copyright laws should be strengthened, on the basis of a vague proposition that a natural right exists in favor of the author or publisher, does not go beyond mere mystification, and it fails to refute the historical findings, legislative and case law developments of the past two centuries. Furthermore, it fails to explain alienation, that is to say the separation of the intellectual worker from the fruits of his labor, based on the work-for-hire doctrine of the 20th century, particularly in the U.S legal configuration of the doctrine, where the employer's rights do not derive from the employee by an implied grant or assignment, but instead, they are deemed to be born directly in the name of the employer.

3.3 Control as the cornerstone of copyright regulation at the start of the 21st century versus non-market based and decentralized models of cultural production

What happened when we moved at the end of the 20th century to a digital networked environment was that the cultural information that was contained exclusively in analog artifacts such as the book, the record or the DVD begun to migrate towards the Internet, thus turning the cultural information which was until then well controlled by its owners into an attribute of the network itself. Consequently, the control that used to reside in the very making of these artifacts was jeopardized because of the inherent technological capability of the digital network to transfer information easily, immediately and without friction across the world. Moreover, and even more importantly, the enormous difference between the 20th and the 21st century brought by technological progress pertains to the ease of producing and sharing cultural information that the users create themselves, who are now capable of reaching out to the rest of the world. Whereas in the 20th century industrial model of cultural production the materials were produced by some set of professional commercial producers who controlled the experience and located individuals at the passive receiving end of the cultural conversation, what we are seeing now is that through the technological advancements in computers and digital networks, people can take more of their cultural environment, more of the information environment, make it their own, use it as found materials to put together their own expressions, do their own research, create their own communications and collaborate with others, rather than relying on a limited set of existing institutions or on a set of materials that they are not allowed to use without permission [Benkler Y., 2007]. And this exactly is the essential difference from a world of the catholic churches control of ideas threatened by the "protestant" book, to a world in which the media conglomerates benefited from control over books, celluloid, vinyl etc. and the scarce and expensive means to produce it, and eventually to a world in which the technology makes production and sharing of cultural information, as easy as their consumption [Moglen E., 2007]. Through the democratizing effect of technology, we are witnessing an unprecedented increase in user autonomy, that is, the ability of people to do more for themselves and by themselves, without having to submit to anyone's control or ask for their permission [Benkler Y. (2006), pp. 8, 133*etseq*].

As the ease and immediacy of frictionless sharing of cultural information jeopardized control over the consumption of cultural goods produced by media conglomerates, the economic foundations of cultural production of 20th century began to crack. Resisting this transition was an inevitable step, as the new capabilities of technology were perceived as a threat by the corporate content providers. In order to force technology into compliance with the 20th century industrial mode of production, copyright laws were updated with a view to regain control. Although technology facilitated the jointure between the user, consumer, producer and distributor of cultural content, the law intervened to force a differentiation of roles once more: The Digital Millennium Copyright Act in the USA and the Copyright Directive (2001/29/EC) in the EU were just two legislative examples, which incorporated provisions regarding control over use, not just control over production and organizational dispositions, as it was the case with 20th century law making. Hollywood's campaign to expand technological constraint by backing Digital Rights Management systems (pejoratively called by its opponents "Digital Restrictions Management") and Technological Protection

Measures for the use of digital media and products, as well as condemning peer-to-peer technologies are some examples of 20th century owners of cultural production to impede the gradual loss of control, as tangible cultural artifacts become bits over the network and then are shared by users all over the world.

Particularly with regard to law making, it is interesting to briefly note a number of legislative preferences adopted in international treaties and/or national legislation, which indicate a general disposition of the legislators in favor of proprietary models of cultural production, increased control over the cultural goods and rent-extraction by industrial producers:

1. Introduction of Digital Rights Management technologies: DRM architectures can be arguably described as an aggregation of security technologies to protect and enforce the interests of the content providers, so that the latter may maintain a persistent control over their content. In particular, a DRM system specifies, manages, and enforces rules (that is, the content providers' rules), focusing mostly on the usage and distribution of their information products. It follows that a sophisticated DRM system involves not only the mere granting of access to specific information, but also the processing of all kinds of information for the electronic administration of rights in order to ultimately enable end to end rights management throughout the value chain [WIPO, 2004, p.11]. The use of such systems enables very granular control of the content and therefore allows content owners to apply various usage models or even introduce new marketing strategies (e.g. pay-per-access).
2. The emergence of a new form of license pertaining to the "right to read": As prominent copyright law expert Jessica Litman observed [1994, p.29], the basic right of copyright, that is, to control copying, was never seen to include the right to control who reads an existing copy, when, and how many times. As however, cultural commodities became digitized, and considering that accessing a work in a digital format requires the creation of a temporary copy in the Random Access Memory of a computer device, the formal rights of copyright holders were expanded to cover any and all computer-mediated access to their works. More importantly, combined with the possibility and existence of DRMs and technological protection measures to establish control and the law's prohibition to circumvent said controls (even in cases of legitimate copyright exceptions or fair use), the law extends an iron grip on how cultural goods are accessed and used.
3. Criminalization of non-commercial infringing activities: Criminal liability has been expanded to cover non-commercial activities which according to the law are considered illegal, including free sharing of copyrighted materials. While it is one thing when the recording or movie industry calls millions of users of P2P networks "pirates" in a rhetorical stunt to conform social norms to their established business model, it is completely different when the state itself outlaws, fines and threatens with imprisonment such a significant portion of society (Benkler, WoN, p. 442).
4. Constant increase in the term of protection for copyrighted works: The most recent retrospective extensions (to a term already stretched numerous times over the past century and which already offered 99% of the value of a perpetual copyright), had the practical effect of helping a tiny number of works (between 1% and 4%, [Boyle J., 2004]. As a result in order to ensure

> that control to this handful of works is maintained, the public is denied access to the remaining 96% of the works that would otherwise pass into the public domain, thus depriving the poor and intellectually starving minds of the world from access to educational and cultural materials which could be distributed at virtually no cost. The "loss" caused by copyright here rivals and exceeds any possible loss from "piracy" [Boyle J., 2004]

The aims of the content industries of the 20th century, which lobby heavily for a constant expansion and stricter enforcement of existing copyright laws is well understood: if the same model of control through a centralized industrial production could be maintained and legally enforced as our cultural production becomes digitized, the new era should be able to produce for the privileged owners of the 20th century a state of grace: As "all that is solid" melts into bits and bytes, the owners would still be able to charge for digital distribution of cultural goods, the traditional business model of cultural production could still be maintained, if not improved, since now the producers would continue to get paid for digital artifacts that they have no marginal cost. However, the challenge now relies in the very social behavior of the public and its primal urge to communicate through sharing. In the words of Yochai Benkler [2007] "*One can always try to create artificial boundaries, technological boundaries, which could prevent people from sharing files, music, etc. But how can somebody create a wall or a boundary against the very basic desire of sharing. One basic reason why the war on piracy is failing is social: people like to communicate, people like to share things and transform them, and technology makes it so easy that there's no apparent way of stopping it*".

The technological developments of the 21st century, particularly those of information processing, storage and communication, have made non-proprietary and non-centralized models of cultural production more attractive and effective than was ever before possible. Ubiquitous low-cost processors, storage media and networked connectivity have made it practically feasible for individuals, alone and in cooperation with others, to create and exchange information, knowledge, and culture in patterns of social reciprocity, redistribution, and sharing, rather than proprietary market-based production [Benkler Y., 2006, p. 462]. These technological conditions have given individuals a new practical freedom of action, and an unprecedented opportunity to create and distribute cultural information with the rest of the globe, without the necessity to resort to the owners of the cultural means of production of the 18th, 19th and 20th century for financing their projects. Market-based production is now accompanied by an emerging possibility of producing and sharing cultural information through non-market models, containing the intellectual production of individuals, either acting alone or in cooperation with each other.

In this context, the emergence of the possibility to create, share and distribute information goods should be read in line with the equally emergent phenomenon of peer production: Successes such as the free and open source software movement and of Wikipedia challenge the conventional thinking about economics of information production as they diminish the role of proprietary/closed markets and hierarchically organized firms. Although this sort of social production and exchange was always present in our societies, its role was largely undermined by the industrial model of market production, mostly because the creation and distribution of analog artifacts still required high capital costs (a printing press, a music studio, etc.). Now, however,

as technological progress minimized the costs of creating and moving information on the Internet, peer production appears as rational and efficient at the turn of the 21st century, as Ford's assembly line was at the beginning of the 20th century, and the pooling of human creativity (or even computation, communication and storage) enables non-market incentives and relations to play a much larger role in the production of the information environment than it has been able to in the past [Benkler Y., 2006, p.470].

4. Balancing copyright objectives with different models of cultural production

In this paper, we have attempted to identify the interrelation between copyright and industry regulation, the cause and effect of copyright policies on the behavior of market and social actors throughout the past centuries, as well as the contribution of copyright law as a regulatory factor of economic relations. We started by examining the social conditions during the introduction and spread of the book as the first mass-produced cultural article in western civilization, and the policy decisions taken with regard to the regulation of an emerging market which was created by the growing demand of the public. We attempted to show the dominant role of the printers and booksellers in this growing market (a role far more dominant than that of the authors) and their attempts to preserve their monopolies and privileges in retaining exclusive control over the way books are produced and marketed, by evoking the theory of a natural right of the author to own the fruit of intellectual labor, a theory however which, not only does not seem to be confirmed by the historical and social trends of the time, but also it seems to be undermined whenever the rights of the authors are in conflict with the rights of the printers, producers of records, and other owners of the means of intellectual production until the 20th century. For this purpose, we have looked at the wide-spread adoption of the work-for-hire doctrine in 20th century intellectual production, and how the relationship of copyright with employment law helped create large, centralized models of production, which created polished cultural goods for consumption by the rising class of workers. We justified the creation of large media conglomerates which owned the vast majority of cultural production to this factor, which continued to grow by leveraging their control over the scarce and expensive means of production. Finally, we attempted to describe how the technological changes at the end of the 20th century pose were treated as a threat to the 20th century model of centralized market-based cultural production, and we noticed that maximalist rhetoric in favor of stronger protection and enforcement of intellectual property rights, a rhetoric which has already been followed to some extent by legislators around the globe.

We are currently observing a steady trend in copyright law, but a growing counter-trend in societal behavior. In law, we are witnessing a continual strengthening of the control that the owners of intellectual property rights area allowed to exert. These changes tip the balance in favor of business models and industrial production practices that are based on exclusive proprietary claims which limit the public sphere, in an era where people who cannot afford to buy information goods may enjoy unprecedented possibilities to access it at virtually no cost; it is no wonder that the biggest advocates of these changes are the media conglomerates of the 20th century, which collect large rents if these laws are expanded and enforced. Social trends, on the other hand, are pushing in the opposite direction, following the trends of a

networked information economy, of non-market production, of an increased sharing mentality, and of an increased ambition to participate in communities of practice that produce information, culture and knowledge for free use, re-use and sharing of such information by others [Benkler Y., 2006, p.470]. These new patterns of social cultural production bring with them the possibility of increased social surplus, but they are also bound to destabilize the status quo of established market-based production models, likely resulting in significant redistribution of wealth and power from previously dominant firms not only to social groups, but also to a number of businesses that will decide to reconsider their business models and build tools and platforms to accommodate the newly productive social relations.

What lies at the core of this tension is, in our view, a dispute regarding the legitimacy of the emerging new model of non-market decentralized production, and the extent to which this model may be allowed to use, share and re-use cultural goods in light of the utilitarian and instrumental origins of copyright legislation. In this debate, we believe, based on the aforementioned findings, that any argumentation that conceals itself behind a rhetoric of a theory on natural rights of the authors would be irrelevant, if not misleading. It would be much more helpful to focus on how to ensure the positive potential and promise that lies in today's means of creating and sharing cultural goods and to recognize a more nuanced understanding of the public sphere, with the presumption being that the author is not a figure who has to be protected from this public sphere but one who resides and works within it [Liang *et al*., 2005]

References

Bainbridge D. (1999), Cases and Materials in Intellectual Property Law, 2nd ed., Financial Times Management

Bainbridge D. (2006), Intellectual Property,5th ed., Pearson Education

Benkler Y. (2007), On Autonomy, Control and Cultural Experience, (interview) online at http://footage.stealthisfilm.com/video/5

Benkler Y. (2006), The Wealth of Networks, Yale University Press

Boyle, J. (2004) A Manifesto on WIPO and the future of intellectual property, Duke Law & Technology Review No. 9, online at http://www.law.duke.edu/journals/dltr/articles/PDF/2004DLTR0009.pdf

Calandrillo, S. (1998), An Economic Analysis of Intellectual Property Rights: Justifications and Problems of Exclusive Rights, Incentives to Generate Information, and the Alternatives of a Government-Run Reward System, Fordham Intellectual Property, Media and Entertainment Law Journal, p. 301 *et seq*.

Danton, R. (1996), The Forbidden Best-Sellers of Pre-Revolutionary France, Norton, W. W. & Company

Dawson R. (1992), The French Booktrade and the "Permission Simple" of 1777: Copyright and the Public Domain, Voltaire Foundation

Deazley R. (2006), Rethinking Copyright: history, theory, language, Elgar Publishing

Debord G. (1967), The Society of the Spectacle, Rebel Press

Defoe, D. (1727), The History of the Devil As Well Ancient as Modern: In Two Parts, 2nd ed. London

Johns, A., (2010) Piracy: The Intellectual Property Wars from Gutenberg to Gates, University of Chicago Press

Harmon A. (2002), Black Hawk Download: Moving Beyond Music, Pirates Use New Tools to Turn the Net into an Illicit Video Club, New York Times, January 17, 2002

Harvey D. (1991), The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change, Wiley-Blackwell

Harvey D. (2007), The Limits to Capital, Verso,

Lakoff G., and Johnson M. (1980), Metaphors We Live By, University of Chicago Press

Lee, M. (2006), Bootlegging: romanticism and copyright in the music industry, Sage

Lessig L. (2008), Remix: Making Art and Commerce Thrive in the Hybrid Economy, Penguin Press

Liang L., Mazmdar A., and Suresh M. (2005), Copyright/Copyleft: Myths About Copyright, online at http://www.countercurrents.org/hr-suresh010205.htm

Liehnhard, J. (1988), Printing in Williamsburg, University of Houston, online at http://www.uh.edu/engines/epi924.htm

Litman, J. (1994), The Exclusive Right to Read, Cardozo Arts and Entertainment Law Journal Vol. 13

Leiboff M. (2006) Tristram Shandy and the limits of copyright law, online at http://www.law.unimelb.edu.au/cmcl/seminars/Marett%20Leiboff%20Passages_paper_format_final.pdf

MacQueen H., Waelde Ch., Laurie Gr. (2007), Contemporary intellectual property: law and policy, Oxford University Press

McLuhan M., (1962), The Gutenberg galaxy: the making of typographic man, University of Toronto Press

Marsden Ch. (2005), Free, open or closed – approaches to the information ecology, Emerald Group Publishing Limited

Moglen E. (2007), From The Birth Of Printing To Industrial Culture; The Root Of Copyright (interview), online at http://footage.stealthisfilm.com/video/10

Morison E. (1972), The Oxford History of the American People, New York City: Mentor.

Patterson L, Lindberg S. (1991), The Nature of Copyright: a law of users' rights, University of Georgia Press

Pottinger D. (1958), The French Book Trade in the Ancien Regime, 1500 - 1791, Harvard University Press

Rose, M. (1993), The Invention of Copyright, Harvard University Press, 1993

Schulze, L. (1996), Irish Palatine Story on the Internet, in Irish Palatine Association Journal, No. 7 December 1996, available at http://www.olivetreegenealogy.com/palatines/palatine-history.shtml

Sterne L. (1757), The Life and Opinions of Tristram Shandy, Gentleman

Weber H. (1996), Paper Bullets: Print and Kingship under Charles II, University Press of Kentucky

WIPO Standing Committee on Copyright and Related Rights (2004), Current Developments in the Field of Digital Rights Management, SCCR/10/2, available at http://www.wipo.int/edocs/mdocs/copyright/en/sccr_10/sccr_10_2_rev.pdf

Woodmansee M. (1994) The Author, Art, and the Market, Columbia University Press

Wu T. (2010), The Master Switch, Random House, 2010

Yu K. (2006), Intellectual Property and Information Wealth: Issues and Practices in the Digital Age, Praeger Perspectives

Zimmerman D. (2003) Authorship without Ownership: Reconsidering Incentives in a Digital Age, NYU Law School, Public Law Research Paper No. 55, online at SSRN: http://ssrn.com/abstract=38252