LUISS

Dipartimento
di Giurisprudenza

Cattedra di Diritto Privato Comparato

Copyright and Digital Technology in Italian, European and US law

Prof. Eugenio Ruggero
RELATORE

Prof.ssa Barbara De Donno
CORRELATORE

Andrea Paviotti, Matr. 124673
CANDIDATO

Anno Accademico 2019/2020

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Introduction:

A famous Hegel quotation says: "What is rational is actual, and what is actual is rational"[1]. We can adapt this sentence to describe most concisely our current reality if we modify it in the following fashion: "What is *digital* is real, and what is real *can be digitized*".

This sentence captures the essence of our world, which is now composed of two dimensions intertwined with one another, and information can be exchanged in the tangible "analogic" world, in digital form and across the two. The transformation can be either from digital to analog, for example through printers (paper printers, 3D printers), or from analog to digital, for example through scanners, digital recordings or photographs. Information in digital form possesses certain key characteristics that set it apart from its analog counterpart: a virtually infinite number of copies can be made for free and without losing quality, it can be sent instantly anywhere in the world and one copy of a file uploaded to the internet may be accessed simultaneously by a potentially infinite number of users. One of the main benefits brought by the digital revolution is the removal of the physical limits to which information was bound, thus opening the gates to new and unthinkable possibilities in the field of communication and co-operation: distance is no longer an issue and the ever growing amount of information we upload to the internet makes it possible to develop new analysis tools and business models.

The characteristics of the new digital environment, as listed above, not only offer incredible opportunities to the business world, but present new challenges to all legal systems, which have to deal with fast evolving technology that doesn't answer to the normal physical rules of material reality. The first challenge for national legislators is that the Internet parallel universe is dominated by private companies that operate across many Nations and use secret algorithms to process data or organize information. The second challenge is represented by the fact that personal data has become a sort of "currency" with which users indirectly "pay" for the "free" services offered by Internet companies. Many Internet companies tend to not see their users as mere "customers" of the services they offer, but as a product that they sell to advertisement companies[2]. The third main challenge is that most of

[1] Hegel's Preface to "The Philosophy of right"

[2] This is particularly true of social networks (like Facebook), search engines (like Google) and content platforms (like Youtube), that base the core of their business model on tailored advertisements. However, also digital retail companies like Amazon rely heavily on personal data of their users to give them personalized offers of products they are likely to be interested in. Of course, there are many internet companies that don't base their entire business models on harvesting information (like Spotify or Netflix).

the internet is very much content driven: platforms attract users (or traffic) by offering access to content that has a marginal cost of reproduction and distribution close to zero.

The first challenge is a challenge common to all aspects of law in the digital society: that of harmonization. The second challenge, the use of personal data as an economic product, is dealt with by privacy legislation. The third challenge is the one on which we focus in our endeavour: how a *corpus* of laws and case-law as technology specific as copyright has evolved, and is evolving, to find a new balance between the interests of the authors, the publishers and the public in the digital world, in the age of the Internet. In order to evaluate such complex changes, we have chosen to compare the reactions of civil law and common law legal systems on account of the fact that "author's rights" and "copyright" disciplines respectively, as we will have a chance to see in chapter one, and in spite of more homogeneous early regulatory efforts, are rooted in opposite philosophical theories regarding the relation between the author and his work.

The technical analysis of the current state of copyright legislation and its future trends in U.S. the EU and Italy, with occasional references to certain solutions adopted in France and in the United Kingdom, stems from three observations and one hypothesis.

The first is the extent to which concepts that had been developed through decades have been impacted to their core by the digital revolution. For instance, the notion of "authorship" and "creativity" will have to be re-though as machine learning technologies and artificial intelligence improve in the next years. Also, some computer programmers in the 1980s and 1990s found a way to create a regime similar to the public domain, in order to extend the amount of publicly accessible works and to take advantage of the limitless opportunities for co-operation made possible by the Internet, by drafting licenses that allow creators to set the intensity of the protection of their works. As a last example, even the right of reproduction, the most fundamental exclusive right, has had to be re-interpreted in order to make sense in the digital era.

The second is that, in order to understand the magnitude of the challenge posed by past and present digital evolution, and the rationale behind the approach taken by the Countries object of our comparison, it is necessary to provide a reconstruction of each element of copyright protection as it was protected before the digital revolution. For example, the need for re-thinking the relationship between man and machine in the creative process due to the advent of artificial intelligence, can't be fully appreciated if we don't also know how this relationship has been regulated in the past, from the invention of photography to machines operating according to traditional coding. Similarly, the need felt by the programmers behind the "free software" and "open source" movements to create the notorious licenses, and the ground breaking nature of the result of their efforts can't be fully

appreciated if we don't know the statutory traditional legislation on collective works, joint works and how works usually enter the public domain.

The third and last observation, from which is born my hypothesis is that, although the duration of copyright protection has been steadily increasing throughout the twentieth century, and the rights granted to authors of digital works, even when they have to be adapted to new technological mediums, are just as exclusive and enforceable as those protecting physical creations, the balance between the interests of the rightsholders and the public seems to be titling in favour of the latter. Or better yet, it seemed to me that said balance needs to be tilted in favour of the public in a digital society.

I have formulated this hypothesis based on three factors. The first is the fact that the cost of reproduction and distribution of digital copies, as we have noted before, is close to zero. The second is the anecdotal evidence I gathered that piracy as a social phenomenon has been curbed more by the introduction of legal streaming services rather than by enhanced protection measures or harsher penalties for the infringers. Internet companies that offered the possibility to access immense collections of protected movies or phonorecords for the monthly price of one DVD or album tilted the balance of copyright (thanks to the possibility to acquire blanket licenses granted to them by law, and so to clear vast amounts of licenses) in favour of the public, removed the perceived injustice of paying just as much for every single digital file as for physical copies and vastly improved the problem of piracy. The third is the modification of the public, both in its quantity and in its quality. A work uploaded to the Internet, if not protected, can in theory be accessed by billions of people anywhere in the world. This fact removes the distribution costs and increases the theoretical number of people that could have interest to access the work: less costs for the rightsholder and more public potentially interested in accessing protected material seems to be a good argument for a stronger protection of the public interest. The change in quality of the public, on the other hand, is due to the fact that thanks to information technologies and Internet connections, anyone can create, manipulate and share his works with the world. The public is more creative than ever, and an original idea can spark countless derivative works across the globe.

The aim of this work is to paint a picture of how the digital revolution has affected copyright legislation at a systemic level, what approach common law (the U.S. in our research) and civil law (EU and Italy) Countries, adopting respectively copyright and author's rights principles, follow in dealing with these new challenges. In the process we hope to highlight the strengths and weaknesses of each approach, the present tendencies of the two systems with respect to such challenges, and to provide an opinion on whether the balance between rightsholders and the public interest is changing or should be changed as a consequence of technological evolution.

In the first chapter we will travel back to the origins of copyright law. The first reaction of various rulers in Europe to the invention of the printing press, how they regulated the economic interests of the various actors in the new market of mass book copying. Then we will follow the development of more thought out legislative solutions in the Eighteenth and Nineteenth centuries in Continental Europe (mainly France and Germany) and in common law systems (first the United Kingdom and then in the United States); the differences in the approaches adopted by the two blocks of States ("author's rights" in Continental Europe and "copyright" in common law Countries) and the philosophical theories on which they were based.

In the second chapter we will study the essential elements of copyright: who is an author, when is a work protected and who holds the rights to a work in certain peculiar situations. In this chapter we will compare the traditional conceptions of each element of a protected work in the U.S., the EU and Italy, and how the "copyright" or "author's rights" approach may be better suited to deal with certain challenges arising from the digital revolution with regards to each specific element.

In the third chapter we will focus on the content of the exclusive rights granted to the authors (or rightsholders in certain cases) and how their interests are balanced against the public interest. We will see how the traditional economic rights have had to be adapted and expanded in order to accommodate new uses of protected works (the fruition of a digital work always implies at least a temporary reproduction of said work) and new types of works that can be copyrighted (namely software). Then we will focus on the legal boundaries to exclusive rights: the public domain, how works end up there and how it had been artificially expanded in the Digital world through the use of innovative licensing methods. Lastly, we will compare the American approach to limitations and exceptions, which heavily relies on a flexible system developed and enforced by Courts based on the fair use clause, with the Continental system of a predefined set of limitations and exceptions.

In the fourth and final chapter we will better visualize the complexity of applying copyright to a digital world and the new and unprecedented problems in protecting digital material. We will examine the issue of mass digitization of literary, musical or audio-visual works either by private companies (google books) or by cultural institutions/cultural projects (the Hathi project, Europeana), both in the U.S. and in the EU as the transition from physical to digital form of copyrighted works parallels the challenges facing copyright in the same transition from an exclusively analogic to an increasingly digital world. We will focus specifically on the new schemes needed to cope with the problems posed by the unimaginable quantity of authorizations needed to operate with digitized works and impossible to clear one by one. In this context, we will focus on the further issues caused by orphan works and by the new uses made possible by digitization of masses of literary works (text extraction and data mining).

Chapter 1. Historical Evolution of Copyright Protection

In this chapter we will travel back in time to witness the invention of the printing press, a technological revolution that forever changed the human possibilities to create, record and spread knowledge. An invention so significant that it not only birthed a new economic sector, but also started the slow process of democratization of knowledge. We can anticipate that regulation of this process would involve a plurality of stakeholders: authors, printers, booksellers, the public and even the State, whose conflicting economic and social interests would have to be weighed and balanced by the legislator in the centuries to come.

We will follow the early development of copyright and its principles through three main phases: first in London and Venice, where rules were put in place to protect the oligopoly of printers and booksellers, then we'll examine the first Legislative Act on copyright and how it expanded the scope of protected interests, finally we shall describe and compare the Anglo-Saxon and Continental approaches to copyright protection as they move their first steps right after the American and French Revolution.

Such an historical digression is important in the context of our research, as we find ourselves in the midst of a technological revolution that is changing our possibilities to create, copy and store information in a radical way: we may say, *mutatis mutandis*, that a new "printing press" has been invented, and in less than three decades it has produced such far-reaching socio-economic consequences that are unmatched even by the invention of the original printing press. An effective example of the extraordinary nature of the digital revolution is the fact that information of any kind, from literary works to movies, pictures and music, is not intrinsically linked to physical supports anymore, it can be copied and shared on a massive scale, anywhere in the world in a matter of seconds. Seeing the similarities in the fundamentally revolutionary nature of these two technological advancements, in order to understand the consequences of digitalization on copyright protection we have decided to go back in time, to the very roots of the principles that have developed through centuries of thinking by scholars and legislators, in order to see how they confronted what in their times were unprecedented economic and social changes and the way they balanced the various interests at play. Studying the way past generations faced the challenges arising from their technological revolution might help us better understand the challenges arising from ours.

1. The Rise of a New Technology

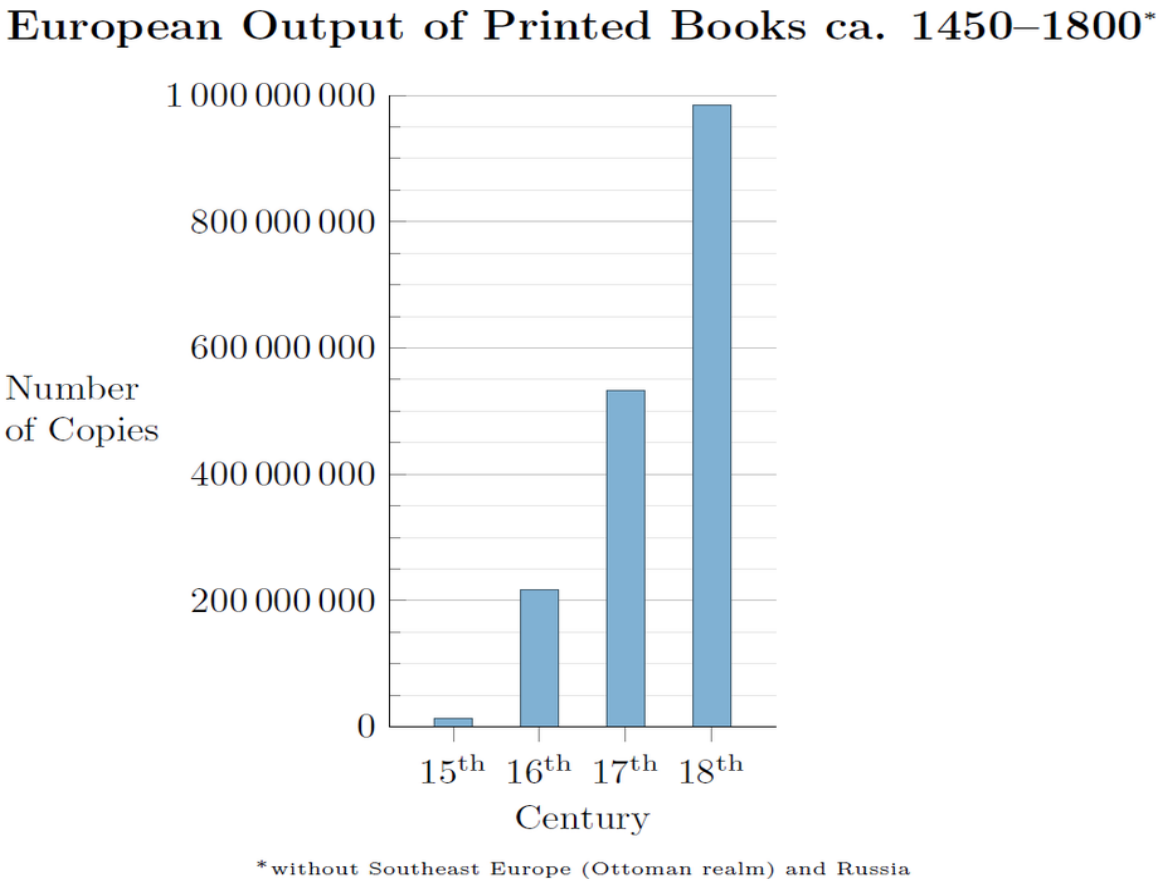
For the most part of human history, since the development of the written word, reproduction of text has been a time consuming and burdensome activity as it had to be done by hand. From the very earliest times of the invention of writing, when words had to be carved into rock or wax tablets, up until the Middle Ages when amanuensis monks copied ancient literary works on paper with the intent of preserving them, there was no significant technological advancement that might help to speed up the process. Even in the case of "mass production" of books, which did happen in the Roman empire thanks to the extensive use of slaves[3], the numbers of copies could not possibly be high enough so as to create substantial economic interests and a need for legal regulation[4]. Most of the time an author would either be already rich enough to not need economic benefit from his works or be under the protection of a patron.

This all changed around 1440 in Mainz in Gutenberg's workshop, where a new printing press which used moveable characters was built and successfully used to print a Bible at an unprecedented speed. In order to better visualize the impact this invention had - effectively creating a new mass market - we can observe the exponential growth of printed books in Europe in the graph below (**Image 1**).

[3]See Dutfield, G. & Uma Suthersanen. *Global Intellectual Property Law* (pp. 63.64). Cheltenham, North Hampton: Edward Elgar Publishing, 2008.

[4] An exception was the Actio Iniuriarum, which protected the personality of the author against defamation.

Image1[5]



This graph also helps us visualize the connection between the introduction of rules and the expansion of the Printing sector: more books circulating meant that more people were reading them, information was travelling faster than ever, and the economic relevance of this new economic sector was on the rise.

New interests are born: an interest of the printers to print and sell as many books as possible while maintaining their oligopoly, an interest of the State to control the information spread through this new means of communication and an implicit interest of the public to access as much information as possible to as low a price as possible. In the first regulating efforts by the State, and in the printer's

[5] Graph made available on Wikimedia Commons by user and creator identified by the following username: "Tentotwo". Source of the data is Datav Buringh, E. & van Zanden, J. L. "Charting the "Rise of the West: Manuscripts and Printed Books in Europe, A Long-Term Perspective from the Sixth through Eighteenth Centuries". 69(2) *The Journal of Economic History* (2009): 417. Available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/0740F5F9030A706BB7E9FACCD5D975D4/S0022050709000837a.pdf/charting_the_rise_of_the_west_manuscripts_and_printed_books_in_europe_a_longterm_perspective_from_the_sixth_through_eighteenth_centuries.pdf.

guilds internal norms, there is no effective protection of author's rights. Their recognition wouldn't come before the first legislative Copyright act, in the early 18th Century, after more than two centuries of exponential growth of printed works, when almost one billion copies were printed every year.

When the Printing Press was invented, governments were interested in this new technological development and greatly favoured the businessmen who could establish it in their territory. Printers were protected as "inventors" and were granted a personal privilege, which constituted a temporary monopoly to print. The focus of protection in this first period was on the technology of the printing press rather than on the works being printed, only after a few decades did literary works become the subject of protection. In the next two paragraphs we shall examine the different ways in which the government protected booksellers in the two cities where the printing industry flourished the most: Venice and London.

We will not limit our efforts to the measures adopted to protect the booksellers, we will also examine the relationship between Printers guilds and the State, and the effects of censorship on the development of the industry.

1.1 Success of the Press in Venice

It is common knowledge that the printing press was invented in Germany around 1540. It is also established that such innovation quickly spread across neighbouring European countries, exported by ambitious businessmen with the favour of the hosting governments.

The year 1465 is almost universally considered the date of the first type issued by an Italian press[6], the *Lactantius*, printed in Subiaco by Sweynheym and Pannartz. Even though Venice cannot claim to be the place of birth of printing in Italy, it was the where typography was developed to its highest potential in the following years[7].

[6] A brief reference should be made to the controversy pertaining the identification of the first book printed in Italy. The *Decor Puellarum* seems to have been printed in Venice by Jenson in the year 1461. The main argument in favour of the authenticity of this book is the fact that the date 1461 is printed on its own colophon. There are multiple pieces of evidence against the credibility of this claim. One of the strongest is that there is no other recorded work printed by Jensen between 1461 and 1470, which contrast with the rapid production of his press from that year onwards. Another is that the type and format of the *Decor Puellarum* are identical to those of Jensen's other works dated 1471.

[7] See Brown, H. R. Forbes. *The Venetian Printing Press: an Historical Study Based Upon Documents for the most part hitherto unpublished*. (p. 51). New York: G.P. Putnam's Sons, 1891.

1. The Rise of a New Technology

The end of the fifteenth century surely was the golden age of Venice's printing for several reasons. The Republic was the freest State in Italy, hence the *novelieri* (authors of new and original books) tended to prefer to be published in Venice: their works were likely to be appreciated by the gay Venetian society and the chance of them being suppressed on grounds of immorality was rather slim. Also, the presence of many presses and a competitive market lowered the cost of production: new books, intended to reach a wide and ever-growing market, could not be expensive. Finally, the vast trade of Venice granted a fast distribution throughout Europe.

These were also the years when Aldus Manutius was active as a printer[8]. He probably established his press in Venice because of the rich collection of manuscripts in Greek and Latin in the archives of the Republic, and because of the presence in the city of a large colony of Greeks, some of whom scholars, that would be capable of assisting him. Up until the time he began his endeavours, in only four cities in Italy had Greek books been issued: there was plenty of room for his idea of printing the classics. His Greek characters are considered the most beautiful of his time and his fame spread all over Europe. But what was the difference between him and his contemporaries, what justifies his enormous commercial success? We can say that it was a consequence of his choice in the style of characters: they were so fine and compact that they were ill suited for large size of books printed in the *folio*[9] or *quarto*[10] formats, in which all books were printed at the time. Accordingly, he began folding his sheets of paper in *octavo*[11], a size that could easily be held in the hand or carried in a pocket, and he managed to compress in it as much information as other printers could in the large *folio* and *quarto* formats. The first example of the use of this type is the "Vergil" of 1501, and it was an instant hit. The price of books dropped at once: Didot calculates that an octavo of Aldus cost approximately two francs and a half, while a *folio* was probably ten times more expensive and could only be read on a desk. [12]

These two innovations of type and format were a revolution in the book trade, which began to reach a far more extensive market than ever before. The wide diffusion of books began the process of popularization of knowledge and learning, at which Aldus aimed, as the classics were now within the reach of any student who chose to study them for himself. And yet Aldus was no precursor of the

[8] Horace Forbes in his study on the venetian printing press will go so far as to call the beginning of the sixteenth century "The epoch of Aldus", and in the elitist world of printers of classical works it certainly was.

[9] In the folio format each sheet of paper is folded once along its shorter side and produces four book pages.

[10] In the quarto format each sheet of paper is folded twice and produces eight book pages.

[11] In the octavo format each sheet of paper is folded three times and produces sixteen book pages.

[12] See Didot. A. Firmin. *Alde Manuce et L'Héllenisme à Venise*. (p165) Paris: Typographie d'Ambroise Firmin-Didot, 1875

open source movement, he was still a businessman and manage to obtain a monopoly for ten years for all books printed in this way.

The early sixteenth century is still at the very beginning of the history of printing, copying and protecting the rights of those involved in the process, a time before legislation that we are going to explore in the next paragraphs.

a. Printing Privileges

We have seen in the previous paragraphs that Venice wasn't the first Italian city where printers established their presses, yet it is remarkable that each expansion of the art received its highest development there. No other city comes close to Venice in the number of fifteenth century typographers: Hain estimates them to be around two hundred while Milan is credited with sixty-three, Rome with forty-one and Naples with twenty-seven[13]. Not only did Venetian printers outnumber their Italian counterparts, but also their art sprung at once to the highest degree of perfection. In truth subsequent masters did little to improve the art and it even showed a tendency to deteriorate in quality due to the expansion of the production. Printing became less of an art and more of a trade, and it soon became an important item in the commerce of the city: the government was gradually forced to turn its attention on this new source of wealth (and problems).

We can identify two distinct periods in the action of the city of Venice regarding the book trade. The first goes from 1469 to 1515[14], it is characterized by the absence of any legislation on the matter and by the informal relations between the authorities and the printers. In this phase we will observe the steps the government took to protect and encourage the art, but also to protect the State against its dangers. Under the first heading fall the *priviegii*, or printing privileges, which was a generic name to indicate the special concessions granted by the government, most frequently though not exclusively by the Council of Ten[15], and asked for a specific work or set of works.

The first that we are going to examine is the monopoly, by which the government gave a certain person the absolute right to print or sell a whole category of books for a definite period. The Senate granted this privilege to John of Speyer, the first businessman to open a press in Venice, in its

[13] See Hain, Ludovicus. *Repertorium Bibliographicum*. (p. 540-543) Paris: Stuttgartiae Sumtibus Cottae, 1838.

[14] See Brown, H. R. Forbes. *The Venetian Printing Press: an Historical Study Based Upon Documents for the most part hitherto unpublished*. (p. 51) New York: G.P. Putnam's Sons, 1891.

[15] See Fulin, Rinaldo. *Documenti per Servire alla Storia della Tipografia Veneziana.* Venezia: Visentini, 1882.

widest possible configuration: for five years starting on the 18th of September 1469 his press was the sole medium by which books could be put on the market. Penalties were put in place against the violation of its provisions in the form of a fine and confiscation of the contraband books. There is great speculation around what could have happened if this privilege would have become fully operative. Other masters were already setting up shop in Venice, preparing their type, perfecting their craft, and in the following years they would take part in the history of printing. It is extremely likely that they wouldn't have waited for Speyer's privilege to expire, they would have certainly brought their skill elsewhere. Fortunately for his colleagues, Speyer died before he could enjoy the fruits of his absolute monopoly, and the art of printing blossomed in Venice in the workshops of a plurality of typographers. A total monopoly for the printing of any and all books was never to be granted again in Venice, but this event shows us the fact that the government did not grasp the magnitude of the printing revolution in its early years.

The second kind of privilege was conceded to the author of the work, securing him a right of property over his work. The second instance of a recorded privilege in the Minutes of the College provides us with an example of this sort of copyright: on September 1486 Marc'Antonio Sabellico was granted the right to authorize the publication of his "Decades Rerum Venetarum"[16], the penalty for infringement was five hundred ducats.

The third kind of privilege is the one of which we have most numerous examples[17]: copyright to an editor or a publisher for a work not their own or only partially so. It is first recorded in 1492 and from that year onwards it constantly occurred; it was indeed the abuse of this kind of copyright which led to the first legislation on the subject of the press in 1517. The problem was that when the custom of asking for privileges took hold[18] printers got into the habit of securing copyrights of as many books as possible, even if they had no intention of ever printing them, just to hinder their competitors.

The fourth and last privilege conceded by the College for the protection of the art was a patent for improvements of the method of printing. It protected the technical innovations and also the works produced by that invention. For instance, the patent granted to Aldus in 1495 for his two new methods of printing using Greek characters, encompassed a monopoly in all Greek books printed in Venice.

These four *privilegii* were designed to protect from competition inside the State and regulate the rapports between venetian printers, there is however a fifth measure, which appeared for the first time as a clause in the monopoly granted to John of Speyer, that protected from foreign as well as

[16] See Hain, Ludovicus. *Repertorium Bibliographicum*. (p. 540-543) Paris: Stuttgartiae Sumtibus Cottae, 1838.

[17] See Brown, H. R. Forbes. *The Venetian Printing Press: an Historical Study Based Upon Documents for the most part hitherto unpublished*. (p. 54) New York: G.P. Putnam's Sons, 1891.

[18] Up until 1517 there was no legal obligation for typographers to obtain a privilege in order to print books

from internal attacks. It was called "protection" and it prohibited the importation or sale of books printed elsewhere[19].

The system of privileges that we have just outlined developed spontaneously in a rather chaotic manner. There was no obligation to apply for a privilege before printing a literary work, and those who did often brought a most various array of reasons in support of their claims: from the bad workmanship of their fellow printers as opposed to the excellency of their own, to their own poverty and misfortune[20]. There was no standard duration set for a *privilegium*, it is estimated to last on average ten years during the first century of printing, with a tendency to rise after the middle of the sixteenth century. It is unclear if the early privileges were even enforced by the government: there was a great confusion regarding the penalties and who should pass judgment for both these pieces of information were specified on the privilege, there was no general rule The lack of a public register of privileges made it impossible for printers to know whether a work was already protected, and even their duration was specific to each privilege, although we know that on average they tended to be granted for ten years[21].

b. Early Legislation and Censorship

In the next years the system of printing privileges and the habits developed by printers and publishers were maintained and codified. The first law on the matter of the printing press was promulgated in 1517 by the Senate; its aim was to solve the inconveniences caused by the existing regime of privileges. We have seen that many privileges were liable to be seriously abused by publishers, such abuse often resulting harmful to trade like in the case of printers obtaining privileges for more books than they could ever print thus blocking the market for other printers. The problem was that the number of privileges had grown to such an extent that many Venetian printers had been forced to migrate because almost any possibility of printing was closed to them by printing privileges already granted. To confront this issue the Senate law revoked every privilege granted in the past and stated

[19] After the year 1519 the Government went even further in its protectionism by adding the provision that works for which a privilege is obtained in Venice, must be printed in Venice.

[20] See Braccio da Brisighella's petition for patent and copyright, found in Brown, H. R. Forbes. *The Venetian Printing Press: an Historical Study Based Upon Documents for the most part hitherto unpublished*. (p. 56) New York: G.P. Putnam's Sons, 1891.

[21] See Brown, H. R. Forbes. *The Venetian Printing Press: an Historical Study Based Upon Documents for the most part hitherto unpublished*. (p. 97) New York: G.P. Putnam's Sons, 1891.

that in future no privilege shall be granted for new works or for those books that have never been printed before.

Having examined the evolution of the typography in Venice from its birth to the first Senate law, we can reach some conclusions that might help us better understand its fundamental characteristics and differences from the English approach. For one, in the first decades of printing, there was no guild of printers and booksellers in Venice: it was established only in 1566 in compliance with a law. The State had interest to the formation of a guild in order to be able to exert some control on this sector and make its laws on copyright and on censorship respected. We have said in the previous paragraph that one of the reasons the press was so successful in its earliest years in Venice was the liberty of costumes of the city. In 1526 things began to change: in order to deal with numerous instances of publication of scandalous or heretic books, a censorial law was passed, all books now required an *imprimatur* in order to be lawfully printed.

The decline of Venice's printing industry was caused by many factors. One was most certainly the inability of the government to make its laws respected. Another was the fact tat the guild was soon riddled with scandals of malversation as well as being accused of abuse on the concession of *imprimaturs.* The shortcomings of both the State and the Guild in enforcing censorship over the venetian presses allowed the Church to seize control of censorship[22]. Once the courts of the Inquisition were responsible for the concession of *imprimaturs* the atmosphere in the workshops of venetian masters was no longer as free as it had been in the golden years. Finally, the pursuit of profit over care for the art of typography and a general decline of printing throughout Italy meant that Venice's dominance in the art of printing ended towards the beginning of the Seventeenth century.

1.2 England

We have analysed Venice as seen the early development of the press in as an example of early greatness in the art of printing. As a consequence, the government had to regulate important issues of great economic significance without having the time to adjust to this new invention. Moreover, we have seen that the few laws it did put in place had limited effectiveness, also because of the fact that neither the Council of Ten nor the guild ever managed to put in place a strong centralized model capable of enforcing the rights granted by the privileges and the censorship provisions.

[22] Index of Pope Clement of 1596

In England on the other Hand the historical development of typography was radically different, and in due time it led to the first statutory legislation on copyright. In the following paragraphs we shall discover the origins of the so-called Anglo-Saxon legal approach to copyright, which is one of the two main models following which copyright law has evolved around the world.

a. The Stationer's Company

In London there are traces of a guild of scriveners, limners, bookbinders and booksellers as early as 1357, more than a century prior to the first appearance of the printing press on British soil. Already in 1403, the guild obtained the right to elect two Wardens, one for the limners and one for the text-writers, that took office by being sworn in before the Mayor of London. They had to oversee the behaviour and work of the craftsmen both in the interest of the City and of the members of the guild itself; and they had the power to present bad and disloyal men to the Chamberlain at Guidehall for punishment[23]. At that time the term *stationer*, which originally meant "a man who had a fixed place of business", was already used in university towns to refer to the members of the book trade. As it gained traction also in London in the course of the fifteenth Century it is only natural that a guild of printers and booksellers would be called "the Stationers' company".

The printing technology reached England quite late compared to other cities in Europe; for the first years the only available printed books were imported from the Continent. Even Caxton, who was the first to open a printing press in England in 1477, was an importer of books as well as a typographer.[24] The art of printing took time to establish itself in England, at first it was mainly exercised by foreign masters coming from France and Germany, as a consequence the book trade was exempt from protectionist measures until 1523, then the wind began to change. By 1534 all previous exceptions had been revoked, and alien printers were left with two choices: they could either go back to their Country of origin, or they could try to obtain citizenship. If they were to choose the latter, he should have to be sponsored by royalty or by a notable and must be enrolled in the guild. In this way, the Stationers' company exerted control over the new elements of the book trade.

The times around which the government began to adopt more restrictive measures against alien printers in England coincides with the time in which royal protection started to be granted to

[23] Blagden, Cyprian. *The Stationer's Company: a History, 1403-1959*. (p.22) London: Allen & Unwin, 1960.
[24] Blagden, Cyprian. *The Stationer's Company: a History, 1403-1959*. (p.23) London: Allen & Unwin, 1960.

booksellers. The first printing privilege was conceded in 1518 to Pynson and Rastell; within the next few years such grants became fairly common. However, as the market for printed books expanded, it became clear that it was unreasonable to request a royal grant for every single work a printer might wish to protect: those interested in exclusive rights to print were therefore compelled to find a way to agree to respect each other's claims. The guild of Stationers was the ideal organization in which such agreements could be worked out, and the fact that a written record of claims to copies was kept in the guild's register meant that disputes might be settled by referring to it.

The year in which the Stationers' Company of London officially obtained control over the book trade in England is 1557, thanks to the concession of a royal Charter; however numerous informal steps were taken before that date. In reaching such an absolute dominance the guild of London printers was helped by historical and economic factors. Printing was well established in the Continent before it got going in England, a hefty slice of the market was taken by import books, and the economic dominance of London over the rest of the Country made it easier for printers in the capital to make printing in provincial cities an unprofitable business. Therefore, if most of the printers were in London, and freemen of the Stationers' Company, the guild represented the most part of the book industry of the State.

The paths of the Company and of the government were bound to cross. In 1538, Henry VIII issued a Proclamation[25] according to which no book was to be printed without the approval of a royal licenser. In these decades there was also a struggle of the State to censor the dangerous, seditious and heretic contents that the press made so readily available and easy to diffuse. At the same time, we have notice of an ordinance of the Stationer's Company that made it illegal for its members to print a book before it was approved by the two Wardens and written in the register.

The interest of the Stationer's company was not in self-regulation, but in tackling piracy and establishing market power. The Crown's efforts to regulate the press however presented the perfect opportunity for the Company to obtain control over printing in the whole of England. As soon as 1542, the Stationer's Company requested a royal Charter to give it more power with the excuse of assisting the Crown in regulating the press. This first attempt to become a publicly recognized body was unsuccessful[26].

However, as the years went by, it became clear that the government on its own was unable to keep the seditious material at bay. In 1557, Queen Mary Tudor conceded a royal charter to the Stationer's Company. Under the charter, the Company was given the usual privileges of being a

[25] Commonly known as the first Licensing Act.

[26] Khong, W. K. Dennis – "The Historical Law and Economics of the First Copyright Act". *Erasmus Law and Economics Review 2*, no. 1 (March 2006): 38.

chartered company: the right to take legal action and to make rules for its own governance, the right to meet together and elect a master and two Wardens and the right to own property in the City. Some unique powers and terms were added to the Charter, its preamble clarifies that they are granted by the King and Queen as a remedy against seditious and heretical books. Firstly, it was stated that no one could exercise the art of printing unless he was a freeman of the Stationer's Company of London or he had royal permission. Secondly the Master and Warden had the right to search the houses and workplaces of all printers, bookbinders and booksellers in the kingdom, to seize anything printed contrary to any statute or proclamation and to imprison anyone who printed without the required qualification or resisted the search. Offenders were jailed for three months without trial and were fined five pounds; half went to the Crown and half to the Company.

The combination of approval-registration and seizure powers bestowed upon the Wardens and the Masters of the Company in 1557, and further widened by subsequent decrees[27], birthed a privately-run system of copy-right in England. Although the existence of this arrangement was criticised as early as 1583 by a royal commission[28], it wasn't until the end of the Seventeenth century that the Stationer's monopoly on the book industry ended.

b. 1710: The Statute of Anne

The year that changed everything was 1694, when the Licensing Act[29] expired. In one hundred and fifty years, the conditions of the printing industry in England had changed substantially: there had been two revolutions[30] and a change of the ruling dynasty[31]. Moreover, the fact that presses had been established and flourished in provincial cities meant that the Stationer's Company, based in London,

[27] For instance, a decree of 1566 established that the books which violated the laws of the land, or a grant issued by the Crown, when found and seized by the enforcers of the Stationer's Company, had to be split in half between the seizer and the Crown.

[28] "We find proued and confessed that the nature of bokes and printing is such, as it is not meete, nor can be without their vndoeinges of all sides, that sondrie men shold print one boke. And, therefore, where her Matie graunteth not priuilege, they [the Stationers] are enforced to haue a kinde of preuileges among them selues by ordinances of the companie whereby euerie first printer of any lawefull booke, presenting it in the hall, hath the same as seuerall to himself as any man hath any boke by her Matie preuilege.": State Papers Domestic Elizabeth, vol. 161, no. 1 (C); probably July 18th, 1583. Quoted from Blagden, Cyprian. *The Stationer's Company: a History, 1403-1959*. (p.42) London: Allen & Unwin, 1960.

[29] It had been in existence since 1538 (see note 22).

[30] The English Revolution from 1642 to 1660, and the so-called Glorious Revolution in 1688.

[31] From Tudors to Stuarts.

was now less effective in enforcing copy-rights[32] and in helping the crown enforce censorship measures[33].

Between 1695 and 1709 there was a stream of petitions for Bills, pamphlets and lobbying activity both for and against the reintroduction of control of the press. Among the arguments used by the Stationers in lobbying the Parliament for the adoption of copyright legislation, one would prove to be a fatal mistake (for them). Up until that moment, authors had a rather marginal role in the printing industry. An author most certainly had ownership of his manuscript, but all he could do was to sell his manuscript to a printer or bookseller, who would then register it in his own name in the Stationer's Company's register, thus enjoying complete ownership. The Stationers tried to persuade the Parliament that a law was needed, not only to allow them to profit as much as possible, but also to provide authors with incentives to create new works[34].

The result of these efforts was the Act of 1710, commonly known as the Statute of Anne, the world's first copyright Statute which effectively ended the Stationer's monopoly on the printing industry. In the following paragraphs we shall examine the philosophy behind this act, and the novelties introduced, how they project us towards a modern conception of copyright.

Simply by reading the title of the Act we can guess the content of the provisions and the mindset of the legislator: "An act for the encouragement of learning, by vesting the copies of printed books in the authors or purchasers of such copies, during the times therein mentioned", and Section I[35] went even further by explaining that the reason the Act was adopted was to put an end to the exploitation of authors under the Stationer's regime and to "encourage learned men to compose and write useful books". From these elements we can infer that the legislator saw the production o new information as a "public good": it is written that protection is given to authors not in their exclusive interest, but for the encouragement of learning, and for a limited time. This conception of copyright, that sees it as instrumental to the public interest of advancing knowledge and diffusing culture, will

[32] I use the spelling copy-rights instead of copyright to indicate the privately enforced rights to copy in use before a proper legislation was passed.

[33] For instance, "When in 1687 the Court ordered David Mallet to cease printing until he was licensed to do so, he bluntly refused […]". Quoted from Blagden, Cyprian. *The Stationer's Company: a History, 1403-1959*. (p.175) London: Allen & Unwin, 1960.

[34] Moser,J. David & Cheryl L Slay. *Music Copyright Law.* (p. 15) Boston, Massachusetts: Course Technology PTR, 2012.

[35] "Whereas printers, booksellers, and other persons have of late frequently taken the liberty of printing, reprinting, and publishing, or causing to be printed, reprinted, and published, books and other writings, without the consent of the authors or proprietors of such books and writings, to their very great detriment, and too often to the ruin of them and their families: for preventing therefore such practices for the future, and for the encouragement of learned men to compose and write useful books; may it please your Majesty, that it may be enacted […]" Section I, Statue of Anne.

develop in the next centuries in what is known as the Anglo-American approach to copyright. We will tackle this topic in the next section of this chapter, for now let's delve into the most striking features of the Statute of Anne.

First, we must say that although copyright was given to authors, limitations were put in place. Authors received a fourteen-year term of copyright protection, after which they could renovate it for an additional fourteen years if they were still alive. The reason for dividing the term was that at the end of the fourteen years the copyright would return to the author even if he had previously sold it to a printer or publisher, so that he might register it again and possibly sell it again. The reason for imposing a time limit at all was to not replace the previous monopoly of the printers with a new one. The strong anti-monopolistic ratio, and a will to strike a balance between different interests emerges also from the price control measures put in place by the Statute: the cost of registration was limited to six pence in section II, and Section IV goes even further by giving certain figures both in the Government and in the Church the power to limit and set the price of any books they might determine to be overpriced.

There were some elements of continuity as well with the previous regime. All the works that had been registered before 1710 saw their protection extended for twenty-one years under the Statute of Anne from the date it came into force. The Stationers were involved in the new system; according to the Statute registration of ownership at the Stationer's Hall was a pre-requisite for a suite, although its effects were only evidentiary. In other words, non-registration was not fatal to the rights of an author.

Many of the measures we have seen in this first copyright Act are at the root of what evolved to become the Anglo-American approach to copyright. Registration of the works which one wants to be protected, the conception according to which granting a copyright to authors is a means to the end of encouraging the production of new culture and knowledge, not something intrinsically belonging to the author for the fact that he was the source of his creation. We shall examine these features and compare them to the features of Continental copyright in the next section.

2. Origins of a Continental and Anglo-American Approach

As we all know, and as we have seen in detail in the previous section, authors create works that are reproduced and distributed by disseminators and enjoyed by the public. The aim of every legal system is to strike a balance between these actors in order to keep the authors productive, the disseminators profitable and the public enlightened. If too many rights are granted to authors or disseminators, then

culture and the public domain suffers; on the other hand, if the audience is given too much protection, production and distribution of cultural works will decline, thus hindering the public interest itself. From an historical perspective the choice of the legislator has always been between the two poles of the audience and the authors, each position upholding noble and desirable values: the first pursues public enlightenment, the second promotes high quality culture[36]. It must be said that neither can exist alone, the choice between them is more a matter of emphasis, of positioning along a spectrum.

On one end of said spectrum we find the doctrine developed in the Anglo-American world, under which the laws governing how authors relate to their work are called "copyright", a term that showcases its utilitarian mercantilist nature. In this legal system, culture is seen as a commodity that can be sold and changed just like any other type of property, protection is accorded to authors as an incentive to their creativity for the benefit of the public. On the other end of the spectrum there is the Continental European tradition, that refers to the laws ruling the rapport between content creators and their works as "author's rights" (droit d'auteur in French, urheberrecht in German, diritto d'autore in Italian), thus implying a more encompassing attitude[37]. This approach protects the author from excessive commercial exploitation by granting moral rights, it sees the rights granted to authors not as a necessary evil that compresses the public's interest, but as a natural consequence of the artist's creative process. We shall go into these issues in more depth in the following paragraphs, but now it's time to address a question that might be lying in the back of the reader's mind: why should we be interested in old philosophical disputes about author's rights and the social role of creativity?

To answer this question there are two factors to take in consideration. First, we must reflect on the words of the internet visionary John Perry Barlow, according to whom "[…] the human mind is replacing sunlight and mineral deposits as the principal source of new wealth."[38] This assessment of the increasing economic importance of ideas is supported by numbers. In the European Union, 38,9 % of all jobs and 45 % of its GDP are directly or indirectly linked to industries heavily based on intellectual property[39]. In the United States we see very similar numbers, with IP-intensive industries accounting for 38.2 % of its GDP and employing over 45 million Americans[40]. The same sources find that IPR-intensive industries generate above average growth, export value and salaries. These

[36] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p.14) Princeton, New Jersey: Princeton University Press, 2014.

[37] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p.15) Princeton, New Jersey: Princeton University Press, 2014.

[38] Barlow, J. Perry, "Selling Wine Without Bottles: The Economy of Mind on the Global Net", 18 *Duke Law & Technology Review* (2019): 11.

[39] Archambeau, C. & Antonio Campinos, "IPR-Intensive Industries and Economic Performance in the European Union". *Industry-Level Analysis Report* (September 2019).

[40] United States Chamber of Commerce's Global Innovation Policy Center.

numbers include all three branches of intellectual property, that are: patents and trademarks (also referred to as "industrial property"), and copyright (or author's rights), but showcase very effectively the impact of this discipline.

The second reason to be interested in the fundamental philosophical components of these ideologies is that we are in a transition period in the balance between them: the extent of the differences between the Anglo-American and Continental approach has not always been the same. At the beginning of the eighteenth century both Anglo-Saxon and Continental nations ended the practice of granting royal privileges to printers and booksellers, instead giving authors property rights in their works. In the nineteenth century their ways parted, with France and Germany formulating and perfecting a natural rights theory to property of works, while in Britain and America these ideas were rejected as they founded copyright claims merely on Statute. In 1886 the Berne Convention, an international treaty imbued with author's rights doctrine, shifted the balance since it was begrudgingly joined by Britain from the very beginning, but the United States resisted it until 1989. Globalization and a stronger advocacy for copyright protection from the United States, seemed to bring closer the two models, and to tilt the scale in favour of the Continental approach[41]. Everything changed with the Digital Revolution: the instances in favour of an expanded public dominion intensified, as well as the struggle to fight piracy.

Today the internet is a content-driven environment of unprecedented complexity, in the next two paragraphs we will be examining the philosophical premises of the two main approaches to copyright can help us to apply those categories to the challenges of the present, with the aim to imagine an integrated system that can pick the best ideas from each model, without ideological prejudice. In the final paragraph we will try to draw some conclusions on this issue.

2.1 Copyright

In the first centuries after the invention of the printing press, of the three main stakeholders that we have previously identified, authors, disseminators and the public, it was the disseminators who were granted the most protection. In the eighteenth century the wind began to change, at this point in time legislators in Britain, the United States and France shared the same goal: to end the monopoly of printers and booksellers, to encourage authors to create works and considered the spreading of

[41] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p.21) Princeton, New Jersey: Princeton University Press, 2014.

knowledge in the national interest[42]. The Statute of Anne was the first example of said tendencies; it shifted the balance in favour of authors, but it did so in a way that acknowledged and protected to a certain extent also the interest of the public to access culture. It put in place a rather short term (fourteen years which could be renewed once) after which a protected work would fall in the public domain and it clearly stated in the title that the reason for protecting author's rights was to encourage the production of literary works. The principles found in this first statutory legislation would then be absorbed by the United States and evolve in what is known as the Anglo-American approach to copyright.

In the United States, before enactment of the Constitution, protection of literary property was competence of the single States. In that period there are traces of mixed arguments made in favour of introducing statutory copyright Acts. Webster was a leading scholar who had compiled two schoolbooks and was involved in lobbying States and Federal Congress for the adoption of copyright measures. Around 1782, he enlisted prominent academic figures in his struggle to persuade State legislators to approve protection measures for written works, and in a letter signed by professors at Princeton and the University of Pennsylvania they not only emphasize the benefits to public instruction that would come from protecting authors, but also resort to the Lockean principle that one's labours give a right to property[43]. This mixed argumentation is clearly discernible also in the copyright Statutes adopted by the single States thanks to Webster's efforts and the Congress resolution of 1783 encouraging them to adopt copyright laws[44]. An example is the preamble to the Massachusetts Act of March 17, 1783, in which, apart from the obvious references to the public benefit, we can read that:"[…] Such security (of having the fruits of one's studies and industry for oneself) is one of the natural rights of all men, there being no property more peculiarly a man's own than that which is procured by the labour of the mind." It's easy to observe the explicit references to Lockean principles and even to the natural rights doctrine commonly linked to the Continental approach, namely in Fichte[45].

The US Constitution, drafted in 1787, placed copyright regulation under federal jurisdiction using terms reminiscent of the Statute of Anne's incentive and access policy. In Article 1, Section 8

[42] Ginsburg, Jane C., "A Tale of Two Copyrights: Literary Property in Revolutionary France and America". 64(5) *Tulane Law Review* (1990): 996.
[43] Webster, N., "Origin of the Copyright Laws in the United States", *A Collection of Papers on Political, Literary and Moral Subjects,* (reprint 1968): 173-174.
[44] See "Resolution passed by the colonial Congress, Recommending the several States to secure to the Authors or Publishers of New Books the Copyright of such Books", May the 2nd1783.
[45] See Fichte, J. Gottleb, "Prova dell'Illegittimità della Ristampa dei Libri. Un Ragionamento e una Parabola" found in archivio Giuliano Marini, digitalized version, translated from the original by Maria Chiara Pietavolo. Originally published in *Berlinischen Monatsschrift,* (May 1793).

it states:" The Congress shall have Power […] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[46] This provision was understood by later interpreters as if it subordinated the author's interests to the public benefit. For instance, a report accompanying the 1909 general revision of the copyright law reconstruct the Constitutional copyright clause as follows:" Not primarily for the benefit of the author, but primarily for the benefit of the public, such rights are given […]."[47] On the other hand, sources in a better position to know the rationale behind the constitutional provisions seem to treat more evenly the private and the public interest. James Madison, in the Federalist Papers[48] clearly states that:" The public good fully coincides in both cases (of copyrights and patents) with the claims of individuals."[49] It is clear that during the early stages of Anglo-American copyright development, the mixed approach seems to be winning, the justifications for the protection of literary works do not differ too much from the Continental European ones.[50]

This all changed barely three years later, when the first Federal Copyright Act of 1790 elevated the "progress of science and useful arts" to first place and treated author's rights as a means to achieve that. This Act was modelled on the British Statute of Anne, it had a similar title, it granted protection for the same amount of time and it introduced formalities, such as registration, deposit of copies and affixation of a notice of copyright as prerequisites to protection. The Wheaton v. Peters case, the first dispute on copyright adjudicated by the Supreme Court, made it clear that there was no "common law" right to copyright; all natural rights arguments were definitively abandoned as the judges found that only statutory provisions granted copyright protection to published works[51]. Copyright was seen as a temporary monopoly granted to foster creativity rather than a right of ownership. The next key legislative evolutions of the American legislation took it even further away from the Continental nations.

[46] U.S. Constitution, Art. 1, Section 8, clause 8.

[47] Quoted from Ginsburg, Jane C., "A Tale of Two Copyrights: Literary Property in Revolutionary France and America". 64(5) *Tulane Law Review* (1990): 999.

[48] It's a series of 85 essays by Alexander Hamilton, John Jay and James Madison. They were written between October 1787 and May 1788 and published in the same years on New York newspapers. They explain the Constitution provisions as part of an effort to persuade New Yorkers to ratify the proposed U.S. Constitution. Since Madison and Hamilton were part of the Constitutional Convention, they are useful to interpret the intentions of those drafting the Constitution.

[49] Madison, J., "The Federalist Paper", No. 43 (January 1788).

[50] As we shall see in paragraph 2.2.

[51] Wheaton v. Peters, 33 U.S. (8 Pet.) 591 (1834) – on the failure to comply with registration requirements.

The Berne Convention was promulgated in 1886 and revised in 1908 in Berlin to prohibit any formal prerequisites to copyright enforcement in tribunals[52]. The Unites States were not eligible to become members of the Convention, but it also wasn't in their interest to do so: it would have meant that they would have to grant morals rights to the authors, relinquish at least in part the "work-for-hire" doctrine and most importantly ensure an equal level of protection to foreign copyrighted works. This especially would have gone against their interests since, being a developing nation, they were engaged in piracy to the detriment of the Old World[53]. The two following major reforms, that of 1909 and of 1976 expanded both the scope and duration of protection but did not reduce the differences and distance with Europe. Only in 1989 did the United States join the Berne Convention, they had now become exporters of intellectual property and were interested in protection of their works throughout the world. As a consequence, between 1988 and 1994, they scaled back formalities, extended protection for moral rights and restored copyright for works in the public domain in the U.S. but under protection in the Country of origin.

We have reached the beginning of the digital age. In the following section we shall reconstruct the origins of the "authors rights" doctrine, and in the final section we will consider the peculiarities and fundamental similarities of the two systems, in an effort to catch a glimpse of present and future tendencies.

2.2 Author's Rights

The modern conception of continental copyright is traditionally attributed to France, even though we have said, and we shall see in more detail in the next paragraph, that at least until the end of the eighteenth century, legislation developed similarly in France, Britain and the United States[54]. German philosophers Kant and Fichte on the other hand, foreshadowed author's rights in their works[55].

As early as 1785 Kant, in his essay "On the Injustice of Reprinting Books" opposes the idea of the necessity of a new law (a natural law of sorts) to protect authors from pirate printers; he is

[52] Menell, S. Peter & Mark A. Lemley & Robert P- Merges. *Intellectual Property in the New Technological Age: 2019 vol. II.* (p. 498) Torrazza Piemonte, Torino: Clause 8 Publishing & Amazon Italia Logistica srl, 2019.
[53] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p. 393) Princeton, New Jersey: Princeton University Press, 2014.
[54] Ginsburg, Jane C., "A Tale of Two Copyrights: Literary Property in Revolutionary France and America". 64(5) *Tulane Law Review* (1990): 995 - 996.
[55] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p.76) Princeton, New Jersey: Princeton University Press, 2014.

convinced and demonstrates that it is possible to obtain the same desirable result by remaining inside the boundaries of the ius commune. To do so, he looked at the issue from three different points of view. He theorized that if we look at the physical aspect of the book, the roman rules on private property applied just like in the case of any other material object; once ownership is legally transferred to him, a buyer enjoys unlimited rights on the book. If we consider a different layer, that is to say the abstract ideas before they are fixed in the text, Kant notes that they are immaterial and infinitely shareable. Reprinting doesn't deprive the original thinker of the paternity of his idea, nor does it prevent him from thinking it, therefore ideas per se do not need legal protection. According to Kant, only if we consider the book as a speech, if we think of it as an action performed by one person in relation to others, is it possible to prove the unlawful nature of unauthorized reprinting. The published book can be considered a speech of the author to the readers through an authorized "spokesman", the publisher. If someone reprints books without authorization, he is abusively pretending to be speaking in the name of the author, entering a legal relationship with him to which he didn't consent[56]. These views of Kant are incredibly interesting because they seem to be put into practice in the modern day by the Creative Commons licences, they also seem to hint at the moral rights of attribution and integrity, notions that would not be developed until the mid-nineteenth century[57].

Fichte was on the other side of the spectrum. He too wrote an essay against reprinting books in direct response to the opposite views of Johann Reimarus,[58] however to justify his position he left the realm of Roman law and used principles of natural law. He identified two aspects of books: a physical aspect, just like Kant, by which he meant the printed sheets of paper, and a spiritual aspect. He divided the spiritual nature of literary works in the two additional categories of matter, by which he meant the thoughts and ideas conveyed by the text, and form, that is the links between words, the shape, the style used to express the ideas. Fichte then theorized that while the property of the "physical aspect" and of the "matter" can be acquired, one by buying the book, the other by studying it, the form could not possibly be alienated since it is so deeply intertwined with the personality of the

[56] Pietavolo, Maria C., "Il Mercante e il Califfo: Politiche della Proprietà Intellettuale" ISDR no. 1 (2006): 4 - 5.

[57] Morillot, André, "De la nature du droit d'auteur, considéré à un point de vue général*," Revue critique de législation et de jurisprudence,* 7 (1878): 124–25. Available at: http://www.copyrighthistory.org/cam/tools/request/showRepresentation.php?id=representation_f_1878&pagenumber=1_26

[58] Johann Albert Heinrich Reimarus' point of view was in essence that if literary property is to be considered an inalienable attribution of the author, it also must be recognized that it can't limit the possibility to reprint of those who buy the book. Once a literary work is printed, published, and bought, the owner should enjoy full property rights and it would be a matter of justice to allow him the right of reprinting if he so pleases. This just general principle could only be limited for a short amount of time in order to grant the author an income.

individual. As a consequence, an author only sells the publisher a right of usufruct over his inalienable property. The unauthorized re-printer acts illegally because he enjoys a right of usufruct that no one has transferred to him. Another important corollary is that the State, in protecting copyright, is not granting a privilege or creating a rule, but it's merely recognizing the existence of an author's natural right to his inalienable property[59]. Fichte's reconstruction is at the foundation of the notion of "intellectual property". Kant and Fichte's ideas might not have influenced contemporary legislation, but they would be rediscovered in the mid-nineteenth century. As the Anglo-American and European approaches began to take different roads, they would constitute the philosophical foundation of the Continental doctrine of "author's rights".

The historical evolution of continental legislation on copyright is in its fundamental tendencies specular to what we have already observed in the previous paragraph. At the times of the French Revolution the aim of the legislator was to break up the monopoly created by the previous system of privileges in favour of the *Comédie Française.* The Act of 1791 was inspired by Le Chapelier's persuasion of the superior value of public domain and of author's exclusive rights as an exception, also, the principles of Enlightenment tended to see such laws as instrumental to the enlightenment of society[60]. Legislation was hence seen as a privilege and the deposit of copies was a fundamental requirement to give rise to copyright protection. That is not to say that there wasn't sympathy for the authors in Revolutionary France; already in 1793 the new Law on Copyright referred to literary works as "property" of the author, however the tension between the public and the private was generally resolved in favour of the latter.

The Continental approach acquired its fundamental characteristics in the course of the nineteenth century, Fichte's construction of intellectual property and the natural rights philosophy were rediscovered in the Romanticist veneration of the solitary artist[61]. International copyright was founded in the "author's rights" continental doctrine with the Berne Convention and it remained virtually unchallenged until recent times. In the following paragraph we will examine what have traditionally been the peculiarities of each legal system and were the digital revolution is taking each system.

[59] Fichte, J. Gottleb, "Prova dell'Illegittimità della Ristampa dei Libri. Un Ragionamento e una Parabola" found in archivio Giuliano Marini, digitalized version, translated from the original by Maria Chiara Pietavolo. Originally published in *Berlinischen Monatsschrift*, (May 1793).

[60]Ginsburg, Jane C., "A Tale of Two Copyrights: Literary Property in Revolutionary France and America". 64(5) *Tulane Law Review* (1990): 1012 - 1014.

[61] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p. 393) Princeton, New Jersey: Princeton University Press, 2014.

2.3 Peculiarities of the Two Systems

Before analysing the present tendencies of the two systems, and after we have analysed the theorical instances behind each approach, it is essential to have an overview of the specific concrete differences between copyright and author's rights:

1. Duration of term. As a tendency, the Continental systems have had longer terms of protection for authors than those of common law. In the eyes of the Europeans, a high level of protection can only foster the development of culture. From the point of view of the United States, longer protection brings a restriction of the public domain and of the public interest.

2. Formalities. Subjecting protection of works to formalities, in the Continental view means placing artificial and unnecessary obstacles between the author and his natural property rights. To sum up the position of the United States we can refer to a senate report of 1974[62] according to which the first reason to support formalities is because they place in the public domain all the materials that no one bothered to actively copyright.

3. Alienability. In the Anglophone world all rights can be alienated by contract. By contrast European legal doctrine, works can never be fully detached from authors, they retain some level of control depending on the specific State legislation thanks to moral rights.

4. Work-for-hire. In the U.S. and the UK respectively since the 1909 and 1911 Copyright Act was founded corporate authorship by making it possible for employers to be considered authors. In Europe this is made much more difficult by the moral rights, although it is not impossible[63].

5. Limitations and Exceptions. Not surprisingly, the United States' "fair use" doctrine allows broader use without compensation of protected works. In Europe L&Es are based on specific lists of exceptions. Such a narrow margin for lawful unpaid uses is mitigated by the "three step test". Both these approaches to L&E's will be examined in depth in the next chapter.

6. Compulsory licensing. It allows works to be reproduced without the author's permissions as long as royalties are paid. This solution has become crucial to cope with the

[62] Senate Report 94–473 (1975), p. 126

[63] In 1985 France vested rights to software in the corporate employers of the programmer.

unprecedented amount of copyrighted works being used and diffused on the internet, namely music[64]. Since it essentially legalized infringement in exchange for automatically paid royalties it contrasts with moral rights, and it has been easier to adopt for common law legislations.

7. Originality. Since copyright has always favoured utility and broad diffusion over artistic value, it is not surprising to find out that the Anglophone doctrine of "sweat of the brow" demands personal effort of the author but not necessarily creativity. Continental requirements are only slightly more stringent, requiring creativity as well as intellectual work[65].

Since the accession of the United States to the Berne Convention many differences have been ironed out, some in favour of the Continental approach, others in favour of copyright doctrine. For instance, the term of protection is now uniformly set at seventy years after the death of the author[66], formalities have been abolished by the UK in 1911 and by the Us more gradually starting in 1976[67].

An important aspect to consider is that the Digitalization is having the combined effect of blurring the boundaries between technological innovation and artistic creation (in the case of software), reducing the marginal cost of copying (movies, songs or software) to zero and erasing borders. Access has taken the place of the traditional notion of "property" of protected material, (let it be sufficient to reference streaming services and amazon Kindle's all access option). New forms of cooperation and distribution of the products of intellectual labour have given birth to new legal solutions, namely the Creative Common Licence and Open Source software. As the shape of the world changes from analogical to digital, so does that of the copyright environment, that becomes ever more complex. New players have entered the spotlight, we can't reduce the interested parties to "authors, distributors and public" anymore, such a categorization describes the old world. Now we have "service providers" that allow users to create, to share, to publish, to access and interact with copyrighted material in new ways.

In our effort to understand the current tendencies of copyright and author's rights we shall limit the scope of our research. In the next chapter we will focus on the essential elements of

[64] See Chapter 3, Music Modernization Act.

[65] Italian law on copyright, L. 633/41, art.1-2

[66] It should be noted that the US constitution's copyright clause prohibits unlimited protection of works. In 2003 the Eldred v. Ascroft case challenged the term extension from fifty to seventy years post-mortem. The Supreme Court rejected this theory, but this episode highlights the underlying differences between copyright and author's rights.

[67] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* (p. 24) Princeton, New Jersey: Princeton University Press, 2014.

Copyright: who is an author, what works can be protected, and on the consensus rising from international treaties on copyright. Having presented a clear picture of the issues at play, we will dedicate the following chapter to research the impact of the digital revolution on European legislation of a pre-existing sector, the music industry. In the fourth and final chapter we shall examine a phenomenon specific to the digital age: hyperlinking, what it is and how current legislation struggles to cope with it.

Chapter 2. Essential Elements of Copyright Protection

In the previous chapter we have travelled back in time to witness the invention of the printing press and examine the very first regulatory efforts to balance the new interests at play. As we progressed through the centuries, we have seen a shift from a regime of personal privileges graciously granted by the ruler to statutory general laws. Although in the beginning all State legislators had the aim of breaking up the printers' monopoly, we soon saw continental Europe (France and Germany) take a different approach to copyright from the common law legal systems. We have then listed the traditional differences between "copyright" and "*droit d'auteur*", noticing how they have become ever less pronounced in recent years thanks to international treaties. Finally, we have briefly considered some of the new problems arising from digitalization.

Up until now we have flown at a high altitude, getting a broad overview of the Country of copyright and a sense of an ongoing epochal change; in the following chapter we shall examine in more detail the single "regions". In the first half, we shall analyse the three essential elements of copyright. First, we shall focus on the figure of author, who can be considered to be one and the relationship between author and machine. Second comes the creation, what are the requisites for a work to be copyrightable and which fall in the public domain. Third we will dive into the complexities of copyright ownership.

In the second half of the chapter the subject matter will be even more technical. First, we will dissect the specific economic rights associated to copyright: right of reproduction, of distribution and broadcasting rights. Then we will see how they are treated and protected in international treaties, such as the Berne Convention, and in common law versus civil law legal systems. Lastly, we will examine the legal measures that can be taken to protect copyright in a digital environment, where the act of copying requires very low technical skills and carries zero costs.

This whole reconstruction will have the effect of building a knowledge of the legal elements and mechanism of copyright protection essential to understand chapter 3, in which we will then focus on the limits various legislators impose on copyright, since it is not considered an absolute right, and how digitalization has created the need for a new balance between the interests of the public and those of the rightsholders. In this regard it seems that we are going in the direction of a less ideological and more solution-oriented approach to copyright, both in Continental and in Anglo-American legal systems. We have seen at the end of the last chapter that around by the end of the twentieth century common law legal systems seemed to shift towards a more author centred protection of copyright. In

recent years however, the digital revolution has made popular and relevant again the Anglo-American approach in the field of limiting and balancing author's rights with the interest of the digital public.

1. The Creator

One thing we can say for sure is that, even though different legal systems put a varying degree of emphasis on the role of authors, they are undeniably at the centre of copyright. Whether the protection of their rights is pursued by the legislator as a means to foster creativity, or the system sees it as a recognition of a natural right, the author is the subject of copyright. This, as we have seen in the previous chapter, hasn't always been the case: up until the end of the eighteenth century, printing privileges graciously granted by the king put exclusive rights of literary works in the hands of distributers, not of the creators, in what can be called a "best exploiter" regime[68]. In the eighteenth century, in what can appear like a paradox, the two main common-law States were the firsts to give authors property rights over their works. England was the first Country to introduce statutory copyright protection in 1710, thus ending the system of printing privileges "[…]by vesting the copies of printed books in the authors […]"[69]. The United States recognized the importance of the role of authors in the Constitution, no less, where it is clearly stated that "The Congress shall have the Power To promote the progress of […] useful Arts, by Securing for limited Times to Authors […] the exclusive Right to their respective Writings […]"[70]. This quick recapitulation of events, which we have previously discussed more extensively, makes it clear that copyright was first developed as an antidote to the monopoly of distributers, as a new approach that found a balance between the interest of the public to access high quality culture as freely as possible, and that of the authors to have an economic return on their efforts. Continental States, led by France and Germany, took a little while longer to develop their own Statutory protection of authors, but when they did, they called the new discipline "droit d'auteur", author's rights, thus making abundantly clear who they placed at the heart of copyright.

We have seen that in common law countries, after the legislative Acts were drafted, the importance of authors seems to have been minimized. This is particularly true for the United States, who for instance refused to enter the Berne Convention for more than a century for, amongst other

[68] Ginsburg, Jane C., "The Concept of Authorship in Comparative Copyright Law". 3(51) *Columbia Law School Public Law & Legal Theory Research Group* (2003): 1064.
[69] Statute of Anne, 1710.
[70] U.S. Constitution, Art. 1, Section 8, clause 8.

reasons, its focus on the figure of the author[71]. At the end of the twentieth century the US finally became a member of the Convention and introduced moral rights while gradually reducing the formalities that were still required. Recently, critics towards the role of the author have begun to emerge again, although they are neither too original nor are their arguments always relevant. However, having declared at the beginning of this section that the centrality of the role of the author in copyright/*droit d'auteur* is undeniable, I must address them.

One of such critiques moves from the observation that Romanticism has influenced the Continental author's rights approach, therefore, they say, the whole legal system relies on an idealized and obsolete notion of a heroic genius *auteur* who expresses his identity and his struggles through his art[72]. The logical conclusion would seem to be the syllogism according to which "we know today that this idea of a lonely genius author is dead, copyright is based on the Romantic author, therefore copyright is dead"[73]. To debunk this syllogism, it should be enough to point out that protection is not accorded to authors based on artistic merit[74], nor is there a geniality requisite.

Another common critique is the one that confuses intellectual property rights with monopoly[75] on the grounds that authors are rarely the ones who benefit from the economic exploitation of their works. Although there is some truth to that statement[76], and corporations can sometimes become copyright oligopolist when they manage the rights of artists and performers (not always in their best interest), copyright *per se* can't be considered a monopoly. Stan Liebowitz helps us by providing a definition of monopoly, according to whom "The key requirement for an economic monopoly is that there are no competing items that consumers consider to be good substitutes for the monopolized item in a particular market". An author is not given a monopoly on a market, he is given a "monopoly" on the work he or she produces with his intellect and effort. If I were to buy a house, I would be given a sort of monopoly on it, in the sense that nobody apart from me can enter it or profit from it, but this

[71] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle*. (p.114). Princeton, New Jersey: Princeton University Press, 2014.

[72] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle*. (pp. 318 – 382). Princeton, New Jersey: Princeton University Press, 2014

[73] Critiques of this sort can be found, among others, in: Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle.* Princeton, New Jersey: Princeton University Press, 2014. And in

[74] See Ginsburg, Jane C., "The Concept of Authorship in Comparative Copyright Law". 3(51) *Columbia Law School Public Law & Legal Theory Research Group* (2003): 1065. Also see legislation on the matter: Italian Law L. 633/41 articles 1, 6 and 10. Also see the Berne Convention, art. 2 and 7. For a more in-depth analysis of copyrightable works see section 2 of this chapter.

[75] Liebowitz, Stan J., "A Critique of Copyright Criticisms". 22(4) *George Mason Law Review* (2015): 946.

[76] For an inside opinion on copyright cartels, how they exploit authors in the entertainment industry see the conversation between comics Bill Burr and Joe Rogan on "The Joe Rogan Experience" podcast, episode 1491. Link: https://www.youtube.com/watch?v=eGsB7hE_cFo

doesn't mean I have a monopoly on the house market in the region where I have purchased that particular estate. In the same way, Authors are given rights that effectively grant them property of their creation, which they will proceed to place on the market, where it will compete with other author's creations. If we focus on the part of the critique that questions the abuse of some corporations, that, if anything, calls for better protection of the author.

One last critique to the protection of author's rights comes from the free culture movements, born towards the end of the century around the notion of technology as a liberating force for of knowledge and around the free software movement. It must be noted that they don't negate the importance of authors, on the contrary, they provide licenses that allow the first author the greatest possible degree of discretion in deciding which rights to keep and which rights to waive. The aim of that sort of intellectual and legal experiment is to promote cooperation among authors, but we shall tackle these issues in the next chapter.

Having put to rest the main critiques to the figure of the author, we are now left we the task of finding him. For even Jane C. Ginsburg, in her paper on this same topic, had to admit that doctrine on authorship is sparse both in the US and in the EU; nonetheless, basing our efforts on the work of previous giants like her, we dedicate the next subsections to the reconstruction of the figure and role of the author in the creative process of a copyrightable work.

First, we shall try to identify the common elements that make one an author according to Continental and American legislation. Then we will explore the relation between an author and the instruments he uses to create; in a world in which machines are able to perform more and more tasks, what is the minimum degree of human interaction required to make one an author? Can machines be considered authors? These are some of the questions to which we shall try to answer.

1.1 Requisites to be Considered an Author

Our analysis of the sources in search of a legal definition of the author begins with the Berne Convention, the most widely adopted international multilateral treaty on copyright. The treaty, contrary to our expectations, begins with an extensive list of *what* should be considered an artistic or literary work, *how* it should be protected, and *which* rights are associated to that protection[77]. Only when we reach section 1 of article 15 do we find a reference to the author:

[77] Art. 1 – 14 of the Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (as amended 28 September 1979)

1. The Creator

"In order that the author of a literary or artistic work protected by this Convention shall, in the absence of proof to the contrary, be regarded as such, and consequently be entitled to institute infringement proceedings in the countries of the Union, it shall be sufficient for his name to appear on the work in the usual manner. […]"

We can easily see that no real guidance is provided: the article doesn't contain a definition of "author", It specifies authorship indirectly and leaves the issue largely to be solved by member States.

In fact, if we examine National laws, indications on the nature of the author, even when present, aren't too satisfying. There is a tendency to describe in great detail the requisites for a work to be copyrightable, while the definition of the author tends to come as an afterthought. We shall therefore begin our research in France, the birthplace of the *droit d'auteur,* if we wish to look for a more complete definition of the author. In the French Code de la Propriété Intellectuelle we find out that "*L'auteur d'une oeuvre de l'esprit jouit sur cette oeuvre, du seul fait de sa création, d'un droit de propriété incorporelle exclusif et opposable à tous"*[78]. The following section clarifies the notion of *création* by saying "*L'oeuvre est réputée créée, indépendamment de toute divulgation publique, du seul fait de la réalisation, même inachevée, de la conception de l'auteur*"[79]. Shortly after we find another reference to the author to the same effect of the provision contained in the Berne Convention *"La qualité d'auteur appartient, sauf preuve contraire, à celui ou à ceux sous le nom de qui l'oeuvre est divulguée*"[80]. The code provides us with the notion of "creation" as a link between protection and author, which is the requisite we usually find in copyright law[81], but in this case it also explains it. French legislation establishes that a work is considered created "regardless of its communication to the public, for the sole fact of the realization of the author's conception". This however is not of any

[78] Code de la Propriété Intellectuelle, créé par Loi 92-57, Chapter 1, Section 111-1, Paragraph 1. Translation: "The author of an intellectual work enjoys, for the sole fact of its creation, an exclusive right of intangible property opposable to all on said work".

[79] Code de la Propriété Intellectuelle, créé par Loi 92-57, Chapter 1, Section 112-1, Paragraph 1. Translation: "A work is considered created, regardless of its communication to the public, for the sole fact of the realization of the author's conception, even if such realization remains unfinished".

[80] Code de la Propriété Intellectuelle, créé par Loi 92-57, Chapter 3, Section 113-1, Paragraph 1. Translation: "The quality of author belongs to the one/those under whose name a work is disseminated".

[81] U.K. Copyright Designs and Patent Act of 1988 declares: "Author, in relation to a work, means the person who creates it". Italian legislation, despite being modelled after the continental model of copyright protection, states in article 6 of law 633/41 "Il titolo originario dell'acquisto del diritto d'autore è costituito dalla creazione dell'opera, quale particolare espressione del lavoro intellettuale". Translation: "Creation of a work, as a peculiar expression of intellectual labour, is what grants the author copyright protection". Fore reference see also the EC database directive 96/9, art. 4 "The author of a database shall be the natural person or group of natural persons who created the base or, where the legislation of the Member States so permits, the legal person designated as the rightholder by that legislation.".

help in our quest, because what it says is essentially that fixation (which we will consider in subsection 2.2, paragraph b.) is required and that there are no formalities.

These notions seem to pertain more to the nature of the work (fixation) and to the philosophy of the legal system in which they are enshrined as rules (no need for formalities has long been a characteristic of the *droit d'auteur*, continental approach), than to the actual nature of authorship. For instance, they wouldn't help us in solving the following problem: in the case of a photographer, who can be considered an author? The photographer doesn't "conceive" the photograph, in the sense that he can only portray what everybody can see, and he is not the creator of reality. Nor does he process reality through his sensibility and technique, like a painter does, because it is the camera that captures light and creates the photograph. Italian legislation as well doesn't help us much with its definition of creation of a work as a *"[…] particolare espressione del lavoro intellettuale"* (peculiar expression of intellectual labour). Such a wording leaves us with the same doubts on the case presented above because we still aren't able to determine whether a photograph of reality, taken by a mechanical instrument qualifies as "intellectual labour". Nowadays this is a solved problem; case law and doctrine have specified in more detail the notions of "conception" and "intellectual labour" in response to the invention of photography, and legal reforms have given a definitive answer. We shall expand on this subject in the next section where we explore the relation between author and machine and how new technological inventions have caused the need for ever more sophisticated theories on the role of the author.

One element of authorship that emerges clearly from the Italian and French laws is that copyright places mind over muscle[82]. Case law confirms this statement. French courts have developed a distinction between "authors" and "*simples exécutants*", those who merely carry out the directions of others. Such an approach we find in the case Hemsi c. Laurin et autres, adjudicated in front of the Court of Cassation, First Civil Chamber in a decision of February 22, 2000[83]. In that case the dispute was between the wife of a famous painter and the researcher who helped her to make an inventory and trace the owners of the paintings that had been sold. The catalogue had been published under the name of the painter's wife and the researcher claimed to be a co-author. The court held her not to be a co-author because she neither conceived the catalogue organization, nor the selection of the works, nor wrote the notes; her contribute had merely been of researching information following the directions she was given.

[82] Ginsburg, Jane C., "The Concept of Authorship in Comparative Copyright Law". 3(51) *Columbia Law School Public Law & Legal Theory Research Group* (2003): 1072.

[83] Sirinelli, Pierre & David Vaver & Muhammad Hussam Mahmud Lufti. *Principles of Copyright, Cases and Material*. (pp. 287 – 288). Geneva: World Intellectual Property Protection Organization, 2002.

The US District Court for the Southern District of New York followed a similar reasoning in the Lindsay v. RMS Titanic case of 1999[84]. In this case the director who planned the whole filming operation, down to its smallest details such as lighting and camera angles, was held as the sole author of the film although the filming was done in practice by a crew of divers. He didn't personally dive and capture the images, but his control over the filming operations made him the author. This decision was consistent with previous case law on analogous circumstances and reduced the crew's role to one of mechanical transcription that did not require intellectual modification[85]. This reasoning means that authors are entitled to copyright protection even if they do not perform with their own hands the mechanical tasks of putting the material into the form distributed to the public. We have thus proven, by examining legislation and case law of different legal traditions, that indeed copyright does place mind over muscle.

The follow up question rising from this assumption, posed by Jane C. Ginsburg in her inquiry on the nature of the author is, "if creation (as we have defined it in the previous paragraphs) is the original title for claiming autorship and obtaining copyright protection, can legal persons be considered authors?" At the time of her essay this was a pressing question, as the work for hire doctrine of Anglo-American jurisdictions vested authorship in the employer (here including juridical persons) in some cases (which we will examine in greater detail in section 3.3 of this chapter), while the moral rights typical of continental jurisdictions greatly limited this possibility. Today the technological evolution has forced the EU and Continental States to integrate the work for hire doctrine in their legal systems for the protection of software and databases (these aspects will be tackled in section 3.3 as well), so we can say with confidence that in general, being a natural person is not a mandatory prerequisite to be considered an author.

This brings us to new issues on the nature of the author caused by the digital revolution. We can make out by what was said previously, and we will see in greater detail in the next section, that the appearance of photograph technology caused some issues, that have now been solved, on the nature and role of the author. Today we live in a world where "machine learning" is a real branch of computer science, not the title of a dystopic sci-fi novel: there are machines programmed by multiple people that are able to "learn" and "act" without a direct human input. These phenomena are at the forefront of technological research and we know that laws usually react and create rules on existing needs, after they have been comprehended. Machine Learning and Artificial Intelligence are only now rising to prominence as players in our societies, with potential impacts on numerous fields, let it

[84] Lindsay v. RMS Titanic US District Court for the Southern District of New York. 1999 WL 816163.
[85] Here the judges cite the *Andrien v Southern Ocean County Chamber of Commerce*, adjudicated by the 3rd circuit in 1991.

be enough to think of self-driving cars (liability in case of damages caused by the autonomous driving features of the vehicle), of prototypes of self-operating military drones (who would be responsible in case of civilian casualties?). In our field, we have seen that the author is someone who realizes his conception, someone who creates something new either by reinterpreting reality through his sensibility[86], or by rearranging pre-existing elements in a new order[87] or even by restoring a decaying work using his skill and talent[88]. If a machine is programmed and trained to paint autonomously whatever might be described by a user, who is the author? Is it the machine or the humans? Is there one author or are there many?

In order to answer these questions, we must form a better understanding of authorship and technology throughout copyright's history, which we will do in the next section by tackling the problems to which the invention of photography gave cause. Then we must learn what is considered a copyrightable work, and finally see how different legal systems deal with a plurality of human authors. Only then will we be able to offer some possible solutions to the problem of artificial intelligence in copyright law.

1.2 Authors and Machines

We have said in chapter one that the invention of the printing press is the reason of the birth of copyright law; in other words, a machine, by providing the means of mass reproduction of works, engendered copyright law[89]. The significance of the new technological medium was so great in the eyes of contemporary rulers and legislators that, as we know, the centre of protection in the first centuries had been the technology that allowed reproduction, and those who controlled it. Only after the consequences of the cartel-like organization model adopted by printers and booksellers became unbearable were rights granted to authors. It is intuitive to guess that when a new method of fixating or creating information becomes available thanks to technological advancements, the role of authors might be put into question. This has happened after the invention of photograph and is currently happening with the development of artificial intelligence. To research the problems raised by new

[86] Think of Picasso's painting "Guernica", in which is portrayed the 1937 bombardment of the omonimous city filtered by the painter's sensitivity.
[87] An example are collective works [see *infra* section 3.1 (a)]
[88] See Trib. Bologna, 23 dicembre 1992, Il Diritto d'Autore, 1993, 48.
[89] Ginsburg, Jane C., & Luke Ali Budiardjo, "Authors and Machines". 34(2) *Berkeley Technology Law Journal* (2019): 2. Available on the SSRN website at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3233885

technology, and their relative solutions, is not only interesting but also useful, because they require us to articulate more precisely the characteristics of the author. The notions we have been able to isolate in the previous section are that an author must have a conception, realise it and exert control over the realization. He doesn't have to perform personally the practical activities needed for the realization, as long as his vision (conception) guides them in sufficient detail.

Before going any further a distinction is needed between different types of machine assistance. Some devices, such as pens, scanners and word processing programs, are not integral to the creation: they are tools needed for the fixation of works and don't influence their nature. However, the greater the role of the machine, the more the author should be required to prove that his effort determined the final form of the work.

This consideration brings us to a second level of assistance, where machines participate to the creation of a work that would not otherwise exist, namely the assistance provided by cameras and sound recording equipment. In the case of sound recordings the issue is not too divisive, since a musical composition is created by an author independently from the medium of fixation, recording it on physical (or digital) support doesn't alter the fact that both the conceptualization and realisation of the music were executed by the composer. The connection between the phonorecord and the original composition is so straightforward that the rights given to the producer of musical phonorecords are called "connected (to the author's) rights".

When photography was invented, it was not seen as a product of the author, but as a product of a machine which had the ability to produce a direct copy of reality.[90] There are records of this new technology being called "the pencil of nature"[91]. The case against considering a photographer an author can be synthetized by the following syllogism: a photograph captures reality by fixating light on a physical medium, this process is done by a machine, and since the photographer has not created reality, he is merely a skilled craftsperson operating a machine. For the first time the question "can a machine be considered an author?" made sense.

Photography was invented in 1826[92], in 1865 the US Congress extended the subject matter of copyright to include photographs[93], but only in 1884 a case on the question of authorship relating to

[90] Farley, Christine H., The Lingering Effects of Copyright's Response to the Invention of Photography 65 *University of Pittsburgh Law Review* (2004): 395 - 396. Available at:
SSRN: https://ssrn.com/abstract=923411.

[91] It was referred to in this way in the title of a book written by William Henry Fox Talbot in 1844. See Naomi Rosenblum, A World History of Photography.

[92] Rosenblum, Naomi & Beaumont Newhall, History of Photography, Encyclopaedia Britannica, inc. (2019). Available at: https://www.britannica.com/technology/photography

[93] Copyright Act of 1865, ch. 126, 13.

photographs was decided by the US Supreme Court[94]. In that decision it was held that, even though an ordinary photograph might lack the necessary requisites of conception by the author, in that specific case the photographer construed the scenery he wanted to capture in such a detailed way, that by taking the photo, the machine captured his vision. Hence, he was recognized as an author. The substance of the reasoning that led to granting copyright protection to photographs is best expressed by jane C. Ginsburg:

"[…]The author (acting as principal) can outsource acts of execution to agents (machines or human helpers) as long as those agents act within the scope of the author's intended delegation of authority, and as long as the principal constrains how the agent carries out her task, the principal remains the author."[95]

The invention of photography forced legislators, Judges and Jurists to re-think the role of the author in order to adapt previous notions to the new needs; defining more clearly in the process the requisites for claiming authorship and ultimately advancing our understanding of the relation between the creator and his/her creation.

If machine-assistance doesn't prevent the author from claiming copyright protection, however, there is still a risk in granting full rights to every photograph. The less unique is the image captured by the photographer, the more likely he is to lay claim to the subject matter depicted, because any following photo of the same generic object will look the same. If taken to its logical consequences, recognizing copyright in ordinary photographs may have the undesirable effect of restricting the creative liberty of genuine creators, scared to use pictures of banal objects in fear of them being *de facto* copyrighted by the first photographer. Our experience tells us a different story: we are free to take pictures of any object without having this sort of fear. That is because Legislators (and courts in some cases) have found ways to prevent, or at least limit these sorts of abuses.

First, the Berne Convention allows a great deal of discretion to member States to determine the term of protection of photographs in setting the minimum term to twenty-five years[96] from the

[94] Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53 (1884). The facts of the case, also known as "The Oscar Wilde Photograph Case are the following: Sarony made a photographic portrait of Oscar Wilde, of which he controlled every aspect of the shot: the camera angle, the composition of the light, the costume and expression of Oscar Wilde. Burrow Giles was the defendant, he had made lithographic copies of Sarony's photograph with no authorization.

[95] Ginsburg, Jane C., & Luke Ali Budiardjo, "Authors and Machines". 34(2) *Berkeley Technology Law Journal* (2019): 19. Available on the SSRN website at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3233885

[96] Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (as amended 28 September 1979)

making of the work. This is a rather significant fact to take into consideration since the normal term of protection granted by the convention is of fifty years from the death of the author, and even in the case of anonymous or pseudonymous works, the minimum term of protection is set at fifty years from the lawful publication of the works.

If the Berne convention approaches the issue of photographs by allowing Member States to protect them for a significantly shorter period than other works of art, at EU level we find a more articulated version of this approach. Article 5 of directive 93/95 for the harmonization of the term of copyright protection makes a distinction between "Photographs which are original in the sense that they are the author's intellectual creation […]" and "[…] other photographs". The first should be protected just like any other creative work[97], the latter are left to the discretion of EU member States, although no clear criterion is provided in order to distinguish one type of photograph from the other. This provision lets us see a trend at international level, where photographs protection harmonization doesn't seem to be a priority and is largely left to single States. So, we shall see how national courts or legislation solve this dilemma.

In Italy photographers haven't been considered authors until 1979[98], before this reform they were only granted "related rights"[99] to their works. The reform of 1979 introduced a distinction between *opera fotografica*[100] (photographic work) and *semplice fotografia*[101] (mere photograph) that is still in place to this day. The first type is considered equivalent to any other creative work, while the second enjoys only limited protection[102]. The key to identify which works fall into one category

[97] For seventy years after the death of the author. As written in article 1

[98] In that year the D.P.R. 8 gennaio 1979 n. 19, article 1 amended the Italian Codice della Proprietà Intellettuale (c.p.i.) in compliance with the 1971 Paris revision of the Berne Convention, which was ratified by Italy only in 1978.

[99] The WIPO definition of related rights, according to a paper printed by them entitled *Understanding Copyright and Related Rights*. Geneva: World Intellectual Property Organization, 2016 is the following: "Related rights, also referred to as neighbouring rights, protect the legal interests of certain persons and legal entities that contribute to making works available to the public or that produce subject matter which, while not qualifying as works […], contains sufficient creativity or technical and organizational skill to justify recognition of a copyright-like property right.

[100] Art. 2 (7) Legge 633/41

[101] Art. 87 Legge 633/41 qualifies this second type of works as "*immagini di persone o di aspetti, elementi o fatti della vita naturale e sociale, ottenute col processo fotografico o con processo analogo, comprese le riproduzioni di opere dell'arte figurativa e i fotogrammi delle pellicole cinematografiche*." (pictures depicting people or aspects, elements or facts of natural and social life, captured through a photographic or analogous process, hereby including reproduction of works of visual art and frames of stock film").

[102] First, protection lasts only 20 years starting when the picture is taken. Secondly, some formalities are required: the name of the photographer, the date in which the picture was taken and, if the subject is a work of visual art, the name of the author of the work that is photographed. Finally, a photograph of this type can be treated as a "work-for-hire".

and which fall in the other is the relation between the machine and the author: in the first case the camera guides the process of merely recording reality, while in the second it is a tool in the masterful hands of the Photographer. The legal requirements that a picture has to satisfy in order to be considered an *opera fotografica* are outlined in greater detail by those who have to adjudicate cases in reality. In a case decided in 1993 in Milan[103] it is said that the author of a photographic work creates a photograph with his fantasy, his taste and his sensitivity, thus conveying his emotions to whoever might see his work. From a more technical perspective he achieves this result thanks to his skill in choosing the light, camera angle and framing of the shot.

Comparing the Italian approach to that of the US we find few differences in the reasoning of the courts. As we have seen in the Sarony case, copyright was granted to the plaintiff on account of the control he exerted on every aspect of the shot in order to realize his artistic vision of Oscar Wilde's portrait. Nowadays, US copyright law protects Photographs without making a distinction between those that can be considered works of art and works of art and those that merely reproduce reality without an active role of the photographer in the composition of the shot. There are however some implicit limitations to prevent the risks of acritical protection of photographic works. The first is in registration: although rights on a photograph arise from the moment the author presses the shutter he is only awarded "actual damages", which he has to prove, in case of infringement if he hasn't previously registered his work with the copyright office. If a photograph is registered, on the contrary, the photographer can lay claim also to "statutory damages". Since professional photographers are likely to register the product of their efforts, while the casual smartphone users are not, this system in fact gives cause to two categories of works, one that is more worthy of protection, the other not so much. Another counterweight to the general protection conceded by the US code was put in place in 2001, in the Original printing v. Goldstar case. The court found that "The photographs lack any artistic quality, and neither the nature and content of such photographs, nor plaintiffs' description of their preparation, give the Court any reason to believe that any 'creative spark' was required to produce them". The reference to a "artistic quality" seems out of place in an American court, since the law protects any type of photographs and doesn't set specific requisites to be awarded copyright protection on a photograph. The Court however later explains this unusual reasoning as follows "finding the photographs in question to be copyrightable... effectively would permit them to monopolize the market for printing menus that depict certain commonly served Chinese dishes". That would have happened, we might add, because virtually any other photograph of the same dish would have looked the same. This is exactly the hypothesis we formulated earlier of an image being so

[103] Tribunale di Milano, 28 giugno 1993. Published in AIDA (1993): 757.

generic that it would allow the author to lay copyright claim to the subject matter itself, which is prohibited by Section 102(b) of the US Copyright Act[104]

Protection of photography was the first case in which copyright had to explore its relation to a non-human author. As we have seen, the role of the machine hasn't been recognized as autonomous or independent from the human operator, but legislators and courts at all levels (international, EU and National) have found ways to solve the problem by according different layers of protection based on the role played by the author in composing the shot.

The problem of the relation between human and machine we face today is even more complex. Artificial intelligence programs are typically written by one (or more) engineer(s). They are then "trained" by experts in the field in which they are destined to operate, and potentially respond to inputs of a third person. To solve the stratification of co-dependent contributes to the final result is the challenge that lies ahead for jurists and legislators in the field of copyright applied to AI and machines capable of "learning".

In order to frame the issue more clearly, which we shall explore in more detail in the following sections dedicated to creativity and to joint works, we adopt the classification of machine assistance developed by Jane C. Ginsburg:

"Our approach delineates three categories of generative machines. Machines designed to create outputs which reflect only the creative contributions of the users are -ordinary- tools, and we should treat them in the same way we treat cameras. Machines which, instead, are capable of producing outputs with minimal user input are -fully generative- in that their outputs necessarily flow from the creative contributions of the machines' designers who, accordingly, are the authors of the resulting works, even if someone other than the machine's designer operates the machine. And machines which produce outputs reflecting the creative contributions of both the designer and the user are -partially generative- in that the machines do not wholly generate the expressive content of the resulting works, but instead rely on the contributions of users."

Ordinary tools we have just analysed in this section and case law on fully generative machines can help us define the notion of originality in the current digital world. Works created with the help of partially generative machines take us to the borders of the notion of authorship and might in the

[104] Section 102(b) of the United States Code - Title 17. "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."

future even be considered joint works, for the "minds" involved in the creative process are indeed more than one.

2. The Creation

Having understood the notion of authorship across various legal systems, which helps us frame the *subject* of copyright, the author, we are now ready to turn our attention to the *object* of legal protection: the works. "What" is protected and under which conditions impacts the scope and effectiveness of all aspects of copyright, therefore in this section we shall explore all these aspects and how are they regulated by International law (the Berne Convention), EU law, when it deals with the issues at stake, and two opposite legal systems (Italian and American), to compare how common law and continental legislators (and judges) approach the definition of the object of copyright.

First, we will study what information is considered copyrightable and what exactly is protected. Then we shall examine the requirements that a work must meet in order to be protected, finally we'll be left with the information that is not copyrightable.

2.1 What is Protected?

Different types of creations are capable of being protected by copyright. In general, the legislator tends to offer a generic definition of what is considered a creative work and follow up with a non-exhaustive list of works that are subject to protection. This approach is dictated by the facts that on the one hand the authors are always in search of new ways to express themselves, and on the other technology evolution might create completely new mediums of expression (like photography did in the nineteenth century).

The Berne Convention for instance states in article 1 that its member states "Constitute a Union for the protection of the rights of authors in their literary and artistic works" and in article 2 (1) it explains the expression "literary and artistic works" saying that it "shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as […]" and providing a detailed list with examples of copyrightable works. Italian copyright law[105] uses the same approach, first it identifies the object of protection in the products of

[105] Legge 22 Aprile 1941, No. 633.

creative ingenuity, regardless of the medium through which they are expressed in article 1[106], and then it provides a list of examples in article 2. The US copyright act contains possibly the broadest and narrowest definition of protected works: In section 102 (a) it is stated that "Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device". The same sentence sets the requisites for copyright protection: originality, expression and fixation, and at the same time opens the way to the future when it says that any medium of expression "now known or later developed" can be used. In section 102 (b) we find the usual illustrative list of protectable works.

In comparing the lists of protectable works that we find in the Berne Convention[107], in Italian law[108] and in US statutory law[109] we can say that thee is a consensus on the protection of literary works, dramatic and dramatic-musical works, sound recordings, photography, cinematography, sculptures, architectural works, pictorial, graphic and illustrative works. We find differences in the fact that the Berne convention and Italian law also protect lectures and speeches even if left in oral form, while the US doesn't[110] as it requires fixation for granting protection in any case. Another difference is that Italian law, as a consequence of the EU directives on harmonization of copyright protection of software[111] and databases[112], lists them as examples of protected works, while the Berne Convention and the US copyright act don't.

It is now clear what kinds of works are protected, but what part of the work remains of the author when it is sold to the customer? This question is the same that was tackled by Kant and Fichte in the eighteenth century in the debate against greedy booksellers who argued that property rights on a single copy of a book, granted the owner full rights over the work.

Today the question seems to be settled and Fichte's approach is adopted to justify copyright both in Anglo-American and in Continental legal systems. A common law scholar, Stan Liebowitz, in a 2015 paper fights the same old tired arguments that a minority of common law doctrine persists

[106] "opere dell'ingegno di carattere creativo […] qualunque ne sia il modo o la forma di espressione".
[107] Art. 2 (1) Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (as amended 28 September 1979).
[108] Art. 2 Legge 22 Aprile 1941, No. 633.
[109] Section 102 (a) Copyright Act of 1865, ch. 126, 13.
[110] U.S. Copyright Office. "Copyright Basics" Circular 1, December 2019. Available at: https://www.copyright.gov/circs/circ01.pdf
[111] Directive 2009/24/EC Of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs, based on Directive 91/250/EC.
[112] Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

in making against the incorporeal nature of intellectual property, identifies the object of copyright protection as follows: ”The underlying property protected by copyright is the non-corporeal expression of an idea (sometimes better referred to as a “title”). The noncorporeal work can be separated, conceptually, from the copies (or physical manifestations, even if only bits held in a memory device) of the title. Allowing anyone other than the copyright owner to produce and sell copies effectively removes the property right from the work. If a purchaser of a copy of a work decides to start producing his own copies of the work to sell, […] what is it that is being copied, if not the work, or title, itself?”[113]. This double nature of intellectual works is hinted in the wording of Section 102 (a) of the US Copyright Act, that we have already cited for other reasons. When it says that “Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium […]” the American legislator makes an implicit distinction between the intangible *corpus mysticum* of the creation and the *corpus mechanicum*. Italian doctrine, perhaps unsurprisingly seeing that it is part of the Continental tradition, of which Fichte’s theories are an integral part, makes the same distinction. Paolo Marzano, in his series of lesson for law students defines the *corpus mysticum* as an “*espressione dell’ingegno umano, protetta dal diritto d’autore; un bene immateriale*” (an expression of the human mind, protected by author’s rights; it’s an incorporeal good) and the *corpus mechanicum* as “*l’oggetto che contiene, incorpora, il primo; si tratta di un bene tangibile, materiale*” (the object that contains, that incorporates the corpus mysticum; it’s a tangible good). And Tullio Ascarelli, already in 1960 explains “*Qualunque creazione intellettuale non può essere percepita indipendentemente da un’estrinsecazione materiale in cose o energie, ma pur a queste si contrappone (le trascende abbiamo detto con una contrapposizione che poi spiega il ricorso tradizionale alla contrapposizione tra corpus mysticum e corpus mechanicum) […] Ai centomila esemplari del romanzo in proprietà dei loro centomila diversi proprietari si contrappone il romanzo come creazione intellettuale appartenente all’autore […]*”[114] (Any creation of the mind can’t be perceived independently from its tangible expression in a concrete medium, be it a thing or energy, and yet it counters it (it transcends its physical manifestations and it is in opposition to them in a way that explains the traditional opposition between *corpus mysticum* and *corpus mechanicum*) […] (for example) the novel as a creation of the mind belonging to the author, opposes the thousands of copies of the novel owned by the thousands of readers who bought the book”.

[113] See Liebowitz, Stan J., “A Critique of Copyright Criticisms”. 22(4) George Mason Law Review (2015): 949

[114] Ascarelli, Tullio. *Teoria della Concorrenza e dei Beni Immateriali.* Milano: Giuffrè, 1960

It is now very clear what kind of works are protected under international, Italian and American law, and which part of the work is the one protected. In the next section we shall study the requisites such works must comply with in order to be subject to copyright protection.

2.2 Requisites for a Work to be Protected

Copyright has historically developed to protect literary works, then its field of application expanded to include music, photography, paintings, sculpture and so on, therefore it is easy to associate it to art, and it might seem obvious that a requisite for a work to be protected would be artistic merit. This however is not the case: both author's rights doctrine and the Anglo-American systems protect creative works regardless of their artistic merit. Italian law, according to its main compiler Eduardo Piola Castelli *"[…] protegge qualunque espressione della personalità dell'uomo, seppur mediocre, costituendo pertanto un premio che lo Stato riconosce dovuto a chi abbia compiuto un lavoro produttivo, apportando un contributo, anche modesto, alla vita intellettuale della nazione*"[115] (Protects any expressions of human personality, even if it is mediocre, (Italian copyright law) being a reward recognized by the State in favour of those who have done a productive work, thus bringing about their contribute to the nation's intellectual scene). In the US the issue is settled in a famous Supreme Court opinion of 1903 by justice Holmes that says "It would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations outside of the narrowest and most obvious limits"[116].

Another area of convergence is that formalities are not required in order to be considered an author, not even by US law, since its access to the Berne Convention. Voluntary registration, however is still possible in the US and actually offers several benefits to the author mostly in the form of advantages in case of a lawsuit, such as establishing a prima facie evidence of validity of the copyright and facts stated in the certificate and being eligible for being awarded statutory damages, attorney's fees and costs[117]. Moreover, there is a requirement of mandatory deposit "in the copyright office for the use and disposition of the library of Congress"[118] of "two complete copies of the best edition" or "two complete phonorecords of the best editions"[119] of published works or phonorecords.

[115] Quotation from Marzano, Paolo. "*A series of lessons on copyright*" Luiss University, 2018.
[116] Bleistein v. Donaldson Lithographing co. 188 U.S. 239 (1903).
[117] U.S. Copyright Office. "Copyright Basics" Circular 1, December 2019: p.5. Available at: https://www.copyright.gov/circs/circ01.pdf
[118] Section 407 (b) of the United States Code - Title 17.
[119] Section 407 (a.1 and a.2) of the United States Code - Title 17.

Having said that, we are going to explore in the following subsection the essential characteristics a work must have in order to be copyrightable: it must be original, and it must be perceivable.

a. Originality

Originality seems like a straightforward criterion; it needs however to be specified and explained in order for it to be applied to real world cases; for different Countries have slightly different notions of originality and even within the same legal system, the intensity of originality may be different based on the nature of the work.

Italian law for instance, focuses on the notion of "creativity" and there is no express mention of "originality". Article 1 states that "*Sono protette ai sensi di questa legge le opera dell'ingegno di carattere creative […]*" (This law protects the works produced by the labour of the human mind, which have a creative nature […]). Italian doctrine interprets this "creativity" requirement as the need for a copyrightable work to be "new and original"[120]. It isn't reasonable however to think that an author must check that no part of his work corresponds to anything that has ever been created before in the history of humanity. This strict requirement is applied to patents, where the invention must not be part of the state of the art and constitute a significant advancement. In copyright law, Paolo Marzano proposes a simple test, based on the law, case law and doctrine: he who creates has to be the origin, the source of the work so to speak.

As we were anticipating in the introduction to this section, such a test can be applied to different works with different intensities. A literary work, for instance, as long as it hasn't been blatantly copied, is considered original. A painting too, even if it's based upon real facts or landscape, is deeply linked to the sensitivity and personality of the painter. These requirements become stricter with photographs, as we have seen. Italian law grants a significantly weaker protection to "simple photographs"[121] than it does to "photographic works", the difference being that in the first case the author simply captures reality, while in the second, the photographer adjusts the elements of reality according to his conception.

[120] Quotation from Marzano, Paolo. "*A series of lessons on copyright*" Luiss University, 2018.

[121] As we have seen in section 1.3 of the present chapter, the author in this case is only given "connected rights", the term of protection is 20 years from the date in which the shot was taken, and the photograph is not protected at all unless there is a clear indication of the name of the author and the date when the shot was taken.

2. The Creation

An interesting case sheds light on the complexities of the notion of originality and how it can be found in a broader spectrum of works than it might seem possible. A 1993 decision of the tribunal of Bologna, awarded copyright to the restorer of a work of art on the grounds that his activity was *"[…] particolarmente complessa ed implicante conoscenze artistiche, tecniche e culturali di carattere innovativo e creativo*" (especially complex and it implied artistic and cultural knowledge and technical skills of innovative and creative character) and that its final result was to "*rendere nuovamente visisbile e riconoscibile un'opera d'arte consistendo tale riconoscibilità nel quid novi, rispetto allo stato in cui si trovava prima del restauro*" (make a work of art visible and recognizable again, being this re-obtained recognizability the *quid novi* with respect to the poor state of conservation in which the work of art was before the restoration).

US law has the advantage of being clearer in establishing the requisites that are needed for the copyrightability of works: it openly states in Section 102 that it subsists "in original works of authorship". But how original should a work be in order to be copyrightable? U.S. case law has dealt with the definition of the scope of originality in numerous cases. Justice Learned Hand famously stated that "[…] if by some magic a man who had never known it were to compose anew Keats's - Ode on a Grecian Urn, - he would be an – author, - and, if he copyrighted it, others might not copy the poem, though they might of course copy Keats's"[122] this decision is very similar to Italian doctrine's reconstruction of originality in so far as objective novelty isn't deemed integral to creative original works. Another notorious decision in which the issue of originality played an important role and is therefore tackled by the justices is the Feist case of 1991[123]. In this case the Court refuted the longstanding common law doctrine of "sweat of the brow"[124] by arguing that a minimum degree of originality was constitutionally mandated in every copyrightable work with the following reasoning "Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity". This decision, in overturning the sweat of the brow doctrine, made it harder to find copyrightability in compilations of facts (which aren't copyrightable), and therefore of databases[125].

[122] Sheldon v. Metro Goldwyn Pictures Corp., 309 U.S. 390 (1940).

[123] Feist Publications, Inc. v. Rural Telephone Service Co, Inc., 499 U.S. 340 (1991).

[124] As is brilliantly summarized by Jane Ginsburg in her essay on the nature of the author the sweat of the brow doctrine essentially implies that "the author need not to be creative, so long as she perspires". The Walter v. Lane AC 539 (1900) case found that a stenographer who took notes in real time of a politician's speech was the author of the written speech because of the effort he put in fixating it.

[125] We will see in more depth the problems with database protection in the US in section 3.1 (a) of the current chapter, dedicated to collective works.

Having explored Italian and American legislation and judicial cases on the requisite of originality, we can now face the second requisite: fixation.

b. Fixation

The Berne Convention leaves member States free to adopt the requisite of fixation on not, in article 1 (2) "It shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or any specified categories of works shall not be protected unless they have been fixed in some material form.". it would be however very difficult to prove the existence of an intangible work, unless it can be perceivable in some tangible form.

In fact, we have already seen that the section 102 of the US Copyright Code requires "original works of authorship (to be) fixed in any tangible medium of expression". Section 101 however, contains a very focused definition of "fixation" that makes this requirement harder to meet than one might expect: "A work is "fixed" in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. A work consisting of sounds, images, or both, that are being transmitted, is -fixed- for purposes of this title if a fixation of the work is being made simultaneously with its transmission". We can say that US law requires "permanent" fixation, not mere fixation.

Article 6 of Italian law[126] establishes that authors are considered original owners of their work at the moment of its creation, such creation being a "*particolare espressione del lavoro intellettuale*" (Peculiar expression of intellectual labour) it isn't enough to do some "intellectual labour", the result of the author's efforts must be expressed.

Italian law only requires that works be "expressed"; once they are made perceivable in any way by the author to the exterior world, they are protected. In the United States on the other hand works need to be permanently fixated on a tangible support. This difference reflects the different philosophies at the roots of copyright and author's rights: the former sees property rights on creative works as a way to foster creativity in the interest of the general public by allowing authors to profit from their work. The latter sees author's rights as a mere recognition of the author's original connection with his work by the legislator.

[126] Legge 22 Aprile 1941, No. 633.

2.3 Non-Copyrightable Information

Ideas, procedures, processes, systems, methods of operation, concepts, principles, and discoveries are not copyrightable. The notion that ideas cannot be copyrighted is fundamental to copyright law because to allow authors to monopolize ideas would suffocate authorship rather than encourage it. Instead, copyright protection is limited to an author's personal expression of ideas.

Copyright law does not protect facts of any kind. The reason is similar to the distinction between ideas and expression. Like ideas, if the first author to write about a specific fact could gain a monopoly over that fact, the creation of other works of authorship using the same fact would be severely restricted. A further reason for not allowing facts to be copyrightable is that facts, although they may be discovered by an author, are not created by an author.

3. Rightsholders

In this third part of the chapter we are going to focus on the multiple interests the law recognizes as worthy of being protected in connection with creative works. We have spent quite some time trying to understand the requisites to be considered author, the relation between human and non-human contributions to a work. Then we have delved deep into the nature of works and requisites for them to be considered worthy of protection by the legal system. Now we shall dive into complexity, by exploring different combinations of the elements that we have unveiled one by one.

What if there is more than one author? And even if the author is only one, what if he isn't the only one to own rights over his creation? What happens when a secondary creator bases his work on previous works? What of the work for hire doctrine, according to which author's rights are granted directly to the employer and not to the employee who is actually the creator of the work? Last but not least, what happens when there is no identifiable author? The US Copyright Act says "-Copyright owner-, with respect to any one of the exclusive rights comprised in a copyright, refers to the owner of that particular right". In this section we try to answer all these problems, so that we might complete our overview of the essential elements of copyright protection, and that we might be ready to tackle the substance of rights (given to the authors or to the public) in the following chapter.

3.1 Works Created by More than one Person

We know that the author owns the rights associated to a work[127], which seems like a pretty straightforward and sensible rule that we have explored from the premise of there being a single author creating one single work. This sort of reasoning is very straightforward in many circumstances, however things get much more complicated when more than one person, each of whom is able to claim authorship status according to the criteria we have described in the previous paragraph, co-operate to create a work that can't be attributed exclusively to only one person. Legislators in both common law and civil law countries have tackled the problem by classifying three possible ways of co-operation and by introducing specific rules in each of those special cases.

a. Collective Works

Since the Berne convention is the most widely accepted international treaty on copyright legislation we shall first analyse its definition of "collective works" in search from a legal common ground to which compare the approach taken at national level by our common law State of choice (the US) and by Italy (and the EU) as a representative of the continental approach. Article 2 of the Convention in listing all the types of protected works states at point 5 that "Collections of literary or artistic works such as encyclopaedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections". It is immediately clear to a reader of the twenty-first century that the phrase "selection and arrangement of contents" is so broad that in the twenty-first century is capable to include even digital databases. A database is indeed a collective work, so in theory it doesn't need to be specifically protected, that is the approach of the Berne Convention (that has not been amended since 1978) and of the United States.

Section 1 of the US Copyright Act[128] is entitled "definitions", and it contains a specific definition of "collective work" as one "In which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole". If we wish to reconstruct the notion of collective works however, we must also look at the following subsection on compilations that goes as follows "A -compilation- is a work formed by the collection and assembling of pre-existing materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term -compilation- includes

[127] For reference see *supra* section 1.1
[128] United States Code - Title 17.

collective works". Basically, the protection is accorded in a way very much reminiscent of the Berne Convention, and every single contribution remains distinct from the collective work as a whole. The creative and copyrightable aspect of a collective work is the assembling of the independent works into a new unified whole. Compilations are "an assembling of pre-existing material or data", but data per se can't be protected by copyright, so what kind of protection can be granted to the mere effort of rearranging public information? The judicial decision that helps us understand the real-world protection for compilations is once again the *Feist* case[129]; although the principal issue of the case was originality and copyrightability, the reasoning of the judges had an impact also on the scope of copyright protection for factual compilations. It finds that "Copyright in a factual compilation is thin. Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in another's publication to aid in preparing a competing work, so long as the competing work does not feature the same selection and arrangement" and that "Facts, whether alone or as part of a compilation are not original and therefore may not be copyrighted". This definition is at the foundation of the doctrine that makes it possible to apply the rules for the protection of collective works to databases.

In the EU legal system there is no specific definition of collective works; the directive on database protection is the only legal instrument that can help us to indirectly solve the puzzle. In two consecutive dispositions it puts in place a protection system very similar to the one we have seen adopted by the Berne Convention and by the US: "For the purposes of this Directive, -database- shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way […]"[130] and a little while later it is said that databases "[…] constitute the author's own intellectual creation shall be protected as such by copyright". This results in essentially the same approach to collective works in general that we have found in the US and in Berne: the works that might be covered by copyright keep being protected as "independent works", while the author of the database is granted copyright protection on the collection as a whole.

Last, we shall study how Italy, our EU member State and representative of the continental approach of choice, protects collective works. As member of the European union, in Italian law can be found both specific provision for the protection of databases[131], that we will analyse in chapter 4, and the general rules for collective works. Italian law's approach to that matter is the same we have seen previously: it defines them as a collection of autonomous works united in a common literary work with a unitary purpose. The author of a collective work is "[…] *chi organizza e dirige la*

[129] Feist Publication, Inc. v. Rural Telephone Service Co., 916 F.2d 718 (10th Circuit 1990).
[130] Art. 1 (2) of Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.
[131] Art. 2 (9) and 12-bis Legge 22 Aprile 1941, No. 633.

creazione dell'opera"[132] (he who organizes and directs the creation of the work). The Italian discipline of collective works isn't so simple however, as it makes further provisions for some specific cases. In a section titled "opera collettive, riviste e giornali" (collective works, magazines and newspapers) we find an article that vests economic rights of collective works in the publisher, while the author remains the person who compiled it. It is an early example of a merger between the Anglo-American "works for hire" doctrine (economic rights are given to the publisher) with the Continental "moral rights" (the person who creates the collective work is considered the author).

It is interesting to notice that the EU began copyright harmonization in the early 1990s and took for granted the existence of copyright of the creator of a collective work and of the authors of the autonomous contributes works. It focused more on databases, where it is likely that the copyrightable work is the result of an original arrangement of non-copyrightable information. US protection of collections of data on the other hand, had to be developed and specified by judges.

b. Joint Works

There isn't much reference to joint works in the Berne Convention, nor is there a definition as there is for collective works; we can however find an indirect recognition of the existence of this type of works and some hints on their nature in article 7bis on "Term Protection for Works of Joint Authorship"[133]. Such article says that the provisions on the term of protection established in article 6 shall apply in the same way to works of joint authorship, with the peculiarity that "[…] the terms measured from the death of the author shall be calculated from the death of the last surviving author". This special criterion tells us that it isn't relevant to term calculation which of the co-authors dies last, therefore we can assume that authorship is considered by the Convention to be evenly spread among two or more people who contributed on an equal level to the creation of the works. Since both the US and Italy are part of the Berne Convention, we find that the sections regulating the term of copyright protection of their national laws contain provisions to the same effect[134]. However, they also have a more detailed discipline on joint works which is worth examining and comparing.

[132] Art. 7 Legge 22 Aprile 1941, No. 633.

[133] So is titled Article 7bis of the Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (as amended 28 September 1979).

[134] Section 106a, subsection (d) number (3) of the United States Code - Title 17 states that "In the case of a joint work prepared by two or more authors, the rights conferred by subsection (a) shall endure for a term consisting of the life of the last surviving author". In Italian law we find the same type of provision in Article 26 of Legge 22 Aprile 1941, No. 633.

3. Rightsholders

Section 101 of the US Copyright Act defines joint works as follows: "A -joint work- is a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole". This approach seems to be focused on the subjective element: the "intention" of the authors to create a unitary whole out of their respective contributions is at the centre of the rule. Italian copyright legislation on the other hand gives more importance to the type of contribution made by the co-authors as we can see in Art. 10 "Se l'opera è stata creata con il contributo indistinguibile ed inscindibile di più persone, il diritto di autore appartiene in comune a tutti i coautori. Le parti indivise si presumono di valore uguale, salvo la prova per iscritto di diverso accordo. Sono applicabili le disposizioni che regolano la comunione" ("If a work was created by several people whose contribute is indistinguishable and inseparable, they have common ownership of the work's copyright. Each share is presumed to be of equal value, unless there is written proof of a different agreement. The rules that discipline the communion apply here.").

The most noticeable difference between these two regimes seems to be the reference to the "intention" to be co-authors required by American law, while Italian law only takes into account the type of contribute that must be "indistinguishable and inseparable". This difference is in reality more perceived than real: the compiler of the Italian copyright code, Edoardo Piola Caselli, recognizes in his comments to the 1941 copyright code the necessity of both the material union of works and the agreement of the co-authors to such union[135]. A recent judgement of the Corte di Cassazione found a way to take into account the will of the parties, finding its implicit relevance in the letter of the law. In the specific case[136] three architects began working on a project for a competition, at the beginning of the collaboration one of them was side-lined and didn't participate in the development of the project, which was only signed by the other two architects and ended up winning the competition. The three architects however had previously signed a private agreement in which the member who had been excluded from the working group figured as a co-owner of the intellectual property of the project. Art. 8 of the Italian copyright code establishes a legal presumption that it is an author whoever is indicated as such in the usual manners, except if there is proof to the contrary. In this case, the private agreement was found to be proof that the third architect was a co-author although he didn't sign the project, therefore the presumption established in art. 10 that the undivided contributions are presumed to be of equal value applied. The alleged insignificance of the third architect's contribution to the final project (i.e. the type and quality of his contribution) was irrelevant since the legally relevant intention of the parties involved in the project had been proven to be of co-authorship. In general, however Italian Courts focus more on the type of contribute, and have in the past denied co-

[135] Marzano, Paolo. "*A series of lessons on copyright*" Luiss University, 2018. Lesson 3, pp. 14-15.
[136] Corte di Cassazione, sez. II Civile, sentenza n. 19220/16.

authorship when one of the two parties only granted technical support, or gave his/her advice or was a simple executor of other's instructions: a contributor to a creative work who wishes to prove co-authorship must make a significant and original contribution.

The U.S. explicit reference to the intent of co-authors resulted in a deeper analysis of American courts of this element, however it might be more helpful to first read how the 1976 Report of the House Judicial Committee on the 1976 copyright reform interpreted the "joint works" definition:

"Under the definition of section 101, a work is "joint" if the authors collaborated with each other, or if each of the authors prepared his or her contribution with the knowledge and intention that it would be merged with the contributions of other authors as -inseparable or interdependent parts of a unitary whole-. The touchstone here is the intention, at the time the writing is done, that the parts be absorbed or combined into an integrated unit, although the parts themselves may be either -inseparable- (as the case of a novel or painting) or -interdependent- (as in the case of a motion picture, opera, or the words and music of a song). The definition of -joint work- is to be contrasted with the definition of -collective work-, also in section 101, in which the elements of merger and unity are lacking;"[137]

The wording of the Copyright Act alone places a lot of focus on the intention to merge contributions as the fundamental criterion to ascertain joint authorship. This House Report goes a step further opening the road to joint ownership even to minor contributors when it says that contributing parts may be "absorbed" (which implies the instrumental nature of one contribution to another) and "interdependent" (expressly including contributions to motion pictures). The courts however have taken a very different path, in which they have interpreted the requisites of originality, control and intentionality in a rather restrictive way, compared to what one might expect from reading the statutory provisions. The reason for this approach of the Courts, as suggested by American doctrine[138], is that there are no specific rules that discipline copyright ownership in movies in U.S. statutory law, which considers them as normal joint works. The risk of this approach is that copyright ownership in massively complex works (such as motion pictures) be scattered among all creative contributors. The statutory solution to this problem is that movies are subject to the work-for-hire

[137] House of Representatives Report No. 94-1476. (September 3, 1976)

[138] [138] Menell, S. Peter & Mark A. Lemley & Robert P. Merges. *Intellectual Property in the New Technological Age: 2019 vol. II*. (p. 613). Torrazza Piemonte, Torino: Clause 8 Publishing & Amazon Italia Logistica srl, 2019.

doctrine, hence "studios routinely require actors to execute work-made-for-hire agreements".[139] In the few instances in which producers have failed to obtain such an agreement however the Courts developed strict requirements to attribute joint authorship, basing their reasoning on the preoccupation for the possible consequences of a different decision.

The Aalmuhammed v. Lee case[140] is an outlier situation in which the Warner Brothers Company, when filming a movie about Malcom X, didn't make Islamic consultant Aalmuhammed sign a work-made-for-hire agreement and this led to his later claim to be considered a co-author of the movie. His contributions to the were very significant, as he presented evidence that he directed Denzel Washington and other actors on set, created two scenes with new characters, supplied voice overs and translated Arabic into English, helped to rewrite the script and even edited parts of the movie in post-production. These contributions respect the requirements of originality and fixation and would be independently copyrightable. Moreover, all parties involved intended Aalmuhammed's contributions to be merged into the movie as interdependent parts of a unitary whole: it seems like the requisites of joint authorship as outlined in statutory law (multiple *authors* who *intend to merge* their contributions into a unitary whole). The 9th Circuit however adopted an interpretation of intentionality inconsistent with statutory rules as we have examined them; it deemed necessary to inquire objective manifestations of a subjective intention of the parties to be co-authors. In the present case, the Warner Bros studios had made everybody, including the movie director Spike Lee, sign work-for-hire agreements. This fact is interpreted as an objective manifestation of the lack of intent to share authorship on the part of Warner Brothers, and no objective manifestations of an opposite subjective intent to be author was find in Aalmuhammed as at no point before the lawsuit did he refer to himself as a co-author.

This criterion was introduced by the Courts and in no statutory disposition do we find any reference to subjective intent to be co-authors, intent, in the legal text only applies to the intention to merge individual contributes into a unitary whole. The Court developed two more criteria that make it much harder for a contributor to be considered a co-author. One takes the Burrow-Giles authorship requirements of conceptualization and control of the work to the next level in stating that even when a contributor would be considered author of his standalone work, if he merges it with a unitary complex work that is organized by a "superintendent", he shall not claim co-authorship. The third and final criterion is so bizarre, arbitrary and far from the letter of the law that we find it necessary to

[139] Menell, S. Peter & Mark A. Lemley & Robert P. Merges. *Intellectual Property in the New Technological Age: 2019 vol. II*. (p. 611). Torrazza Piemonte, Torino: Clause 8 Publishing & Amazon Italia Logistica srl, 2019.

[140] Aalmuhammed v. Lee - 202 F.3d 1227 (9th Cir. 2000).

quote the Court's own words in describing this third factor: "the audience appeal of the work turns on both contributions and the share of each in its success cannot be appraised".

The development of requirements for joint authorship much stricter than those necessary for undivided authorship was done by Courts deciding cases involving motion pictures in order to avoid copyright chaos in these works. Cases similar to Aamuhammed v. Lee, namely Casa Duse LLC v. Merkin[141] in 2015 building on Garcia v. Google[142] in 2014 ended up deciding that parts constituting motion-pictures or any other integrated work are not separately copyrightable. In both these cases the Courts motivated their decisions of denying co-authorship in movies and the strict criteria adopted by saying that deciding otherwise "would make swiss cheese of copyright" (in the 2014 case) and "fill films with thousands of standalone rights".

These decisions clearly forced the letter of the law but were necessary because in American law, co-authors are considered tenets in common "even when it is clear that their respective contributions to the joint work are not equal"[143]. This means that each co-author is autonomously entitled to all the exclusive rights usually granted to the single copyright owner, with the sole exception of exclusive licensing deals, which must be agreed upon by all co-authors.

This leads us to two major differences between the American and the Italian systems: on the one hand Italy has a specific set of rules to award authorship in movies (which is a great feature of Italian legislation since it doesn't have a work-for-hire doctrine and wouldn't be able to easily solve complex problems that arise from considering movies normal joint works), on the other the rights given to co-authors are more interdependent than those of their American counterparts.

Law 633/41 deals with motion pictures in articles 44 to 50. It creates a clever system presumes the authors of the scriptment, of the screenplay, of the music and the director to be co-authors, but vests the economic rights to the commercial exploitation of the motion picture in the producer. Then the law creates an obligation upon the producer to grant a percentage of the income or of the profits of the movie to the co-authors and forbids the producer to create or distribute derivative works without the consent of the co-authors. This elaborate set of rules (here summarized) is the reason why Italian had a much easier time in dealing with joint works: the most important representatives of that category, motion pictures, are specifically disciplined by law.

The other difference between joint works in the U.S. and Italy, as we have already anticipated, is in the autonomy co-owners are given by law to use their copyrights. If American law only requires

[141] 16 Casa Duse, LLC v. Merkin, No. 13-3865 (2d Cir. 2015).
[142] Garcia v. Google, Inc. - 786 F.3d 733 (9th Cir. 2015).
[143] Menell, S. Peter & Mark A. Lemley & Robert P. Merges. *Intellectual Property in the New Technological Age: 2019 vol. II*. (p. 613). Torrazza Piemonte, Torino: Clause 8 Publishing & Amazon Italia Logistica srl, 2019.

co-authors to come to an agreement in case of an exclusive licensing deal, Italian rules only allow co-authors to act individually to use a work according to its first type of publication and to defend their moral rights. The first publication, any modification and use different from that of first publication must be authorized by all the co-authors. Unjustified denials of authorization must be evaluated by a Court and can be overridden by judges. This system is coherent with an "author's rights" civil law approach since it puts legal value on the permanent link between an author and his creation: every co-author keeps control of virtually any possible use of the joint work, whereas in the U.S. the law stresses more the economic advantages of not giving a *de facto veto* right to multiple people in order to avoid blocking (or delaying) the dissemination of a joint work to the public.

In this section we have mentioned more than once the work-for-hire doctrine, we shall deal with this all-American institution in the next section and evaluate the theorical advantages of introducing a similar measure also in civil law legal systems.

3.2 Works Made for Hire

Britain and America's copyright systems draw clear distinctions between authors and rights owners. The two may overlap. But once the author has assigned rights to his work, they usually diverge. When Anglophone authors sell rights to publishers, producers, and other disseminators, they lose almost all control, while the new owners are largely free to do as they please. Work-for-hire, a core doctrine of Anglo- American copyright, transforms the employer into not only the owner but also the legal author of his employees' work.

We have already introduced the work-for-hire doctrine, in contrast with moral rights, when we listed the differences between Anglo-American and continental approaches to copyright in the first chapter. In continental Europe, the core of the author's rights approach is the respect of the personal connection between an author and his work; an author retains some aesthetic control even after economic rights have been alienated, thanks to moral rights. As we have anticipated, in the last decades Continental legislators have begun to recognize employers as the owners of works created by employees in certain specific cases; there isn't a comprehensive discipline, only specific provisions that apply to some types of works. At EU level art. 2, paragraph 3 of the Software Directive[144] states "Where a computer program is created by an employee in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled

[144] Directive 2009/24/EC Of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs, based on Directive 91/250/EC.

to exercise all economic rights in the program so created, unless otherwise provided by contract". The Database Directive[145] takes a different approach in recital 29 "Whereas the arrangements applicable to databases created by employees are left to the discretion of the Member States; whereas, therefore nothing in this Directive prevents Member States from stipulating in their legislation that where a database is created by an employee in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights in the database so created, unless otherwise provided by contract" and art. 4 paragraph 1 "The author of a database shall be the natural person or group of natural persons who created the base or, where the legislation of the Member States so permits, the legal person designated as the rightholder by that legislation". In this case the EU legislator's approach left the choice in the hands of national legislators, to the detriment of harmonization. Neither directive introduces a proper work-for-hire provision since they clearly state that employers shall be considered owners of the economic rights *ab initio*, but the author would still be the employer.

Italy complied with both directives by adding article 12-bis to its copyright law, in which it rules that employers shall own the exclusive right of economic exploitation of both software and database created by their employee as part of his job or under the directions of the employer. Art. 12-ter introduced a provision to the same effect regarding industrial designs. Italian law also considers the employer as the owner of exclusive economic rights in photographs that are not photographic works which have been taken by the photographer as part of a contractual obligation.

The American legal system is more concerned with enabling and fostering dissemination of works rather than protecting an impalpable spiritual connection between an author and his work. Authors and rightsholders are part of two distinct categories, which may overlap (at the moment of the creation), but once authors assign their exclusive rights, they don't retain a connection to their work. One of the most effective ways to encourage the diffusion of works (of economic goods in general really) is to cut transaction costs, that is why the works-made-for-hire doctrine, outlined in section 1 of the U.S. copyright code, decrees that employers are not only owners, but are to be considered authors of the works created by the employers. Such a disposition is perfectly coherent with the American copyright legislation and principles that sees author protection in a utilitarian light.

The significance of this doctrine in the United States cannot be underestimated. As we have seen in the previous section, motion pictures producers can maintain total control of movies and avoid complicated lawsuits based on the joint works discipline, thanks to work-for-hire contracts. Another advantage of this doctrine, and a consequence of the fact that it cuts transfers between authors and

[145] Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases.

employers, is that it constitutes an exception to "termination of transfer and licenses" under section 203 of the U.S. copyright code. Authors can assign their rights in two ways assignment or licensing, of which we provide the WIPO definitions[146]:

Assignment is a transfer of a property right. Under an assignment, the right owner transfers the right to authorize or prohibit certain acts covered by one, several or all rights under copyright. The person to whom the rights are assigned becomes the new copyright owner or right holder. Copyright rights are divisible, so it is possible to have multiple right owners for the same or different rights in the same work.

Licensing means that the copyright owner retains ownership but authorizes a third party to carry out certain acts covered by the economic rights, generally for a specific period of time and for a specific purpose.

Section 203 was introduced by the 1976 and introduces a rule intended to protect authors whose works gain value over time and it states that "In the case of any work other than a work made for hire, the exclusive or nonexclusive grant of a transfer or license of copyright or of any right under a copyright, executed by the author on or after January 1, 1978, otherwise than by will, is subject to termination". It is an inalienable right, which the authors (or their heirs) may exercise after 25 to 40 years from the date they have licensed or assigned their rights, to terminate such grants. The only way economic exploiters of protected works can avoid it is to be considered authors ab initio; requirement that is only satisfied by the employer in works created under a work-for-hire contract.

In section 101 of the US States Code we find two types of works-made-for-hire: one is defined, as we might expect as "a work prepared by an employee within the scope of his or her employment", the other has a much broader definition that includes an extensive list of works that, according to the law, are eligible to be considered "works made-for-hire" if they are "[…] specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audio-visual work, as a translation, as a supplementary work as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire".

The complexity and broadness of the American work-for-hire doctrine is certainly unmatched by any continental legislation. However, it is interesting to notice that the principle underlying such doctrine, that is to consider the employer to be the author (or the owner of economic rights) of works created by his employees, has been partially introduced in reforms of specific sectors of the digital economy by Continental States even if it is at the polar opposite of the philosophical reasoning behind

[146] WIPO. *Understanding Copyright and Related Rights*. Geneva: World Intellectual Property Organization, 2016.

the “author’s rights” approach. The ability to introduce useful legal tools contrary to one’s ideology seems to have become a necessity in the Digital Revolution. Interestingly enough, in the next chapter[147] we shall find a similar open mindedness in American legislators when dealing with moral rights.

3.3 Derivative Works

Derivative works, as is suggested by their name, are works that clearly stem from, or build upon a pre-existing work. Art. 2 paragraph 3 of the Berne Convention provides us with a list of examples “translations, adaptations, arrangements of music and other alterations of a literary or artistic work […]”, to which art 4 of the Italian copyright act adds “transformations from one into another literary or artistic form, the modifications and additions that constitute a substantial remake of the original work, reductions, summaries, variations that do not constitute the original work”.

There are no examples in the United States Copyright legislation, however they are therein mentioned and protected: Section 106 lists as an exclusive prerogative of the copyright owner the right “to prepare derivative works based upon the copyrighted work”. Section 103 states that “The copyright in such work (compilation or derivative work) is independent of […] any copyright protection in the pre-existing material”.

Italian law grants the same type of protections to authors of the original and the derivative works. The first has the right to make or authorize the making of a derivative work. The second owns a separate autonomous copyright on the resulting work, provided that it was a lawful use.

It is well-established that every creative work relies to some extent on previous creations, and that ideas are not copyrightable. Those factors act as limits to the protection of derivative works, surely a series of abstractions and creative contributions could end up in the original work leaving no recognizable trace in the derivative elaboration apart from the fundamental idea, which is not subject to copyright. This limit is laid out very clearly in the Nichols v. Universal Pictures Corp. case, where the judges found that:"Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. (...) but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his 'ideas' ".

[147] Chapter 3, Section 1.1.

Other and different scenario would occur where such recognition is not possible. Where, in other words, the elaboration of the expression of others has not been carried out by the second author, but a re-elaboration so profound and incisive as to go back to the point of the idea underlying the original work, making it no longer traceable in that derived.

In this sense, think of the analysis of Learned Hand in the aforementioned case Nichols v. Universal Pictures Corp., 45 F.2d 119 (2d. Cir. 1930): "Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. (...) but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his 'ideas' ". H.R. Rep. page 120.

3.4 Orphan Works

We have studied the requisites to be considered an author, works created by multiple contributors, derivative works where an author creatively transforms someone else's work: the figure of the author has certainly been at the centre of our study of copyright's fundamental elements. Lastly, we deal with authorless works, or to be more precise, works whose author can't be found or located. There are many reasons for an author not being linked to his works, copyright protection lasts for a very long time, and it can sometimes be hard to track down the author of a work that was published decades ago. Since copyright expires seventy years after the death of the author, it is possible in some circumstances that the heirs of the author aren't aware of the inheritance or of the copyrights. When it is a company that owned the copyright, it may happen that it had gone out of business many years before and it isn't possible to determine who it was transferred to. In other instances, the author himself might not have wanted to be associated to his work and might have published anonymously.

One of the few legal definitions of orphan works can be found in art. 2 of the EU Directive on certain permitted uses of orphan works[148]: "A work or a phonogram shall be considered an orphan work if none of the rightholders in that work or phonogram is identified or, even if one or more of them is identified, none is located despite a diligent search for the rightholders having been carried out and recorded". Orphan and anonymous works are not part of the public domain, which means that they are protected just like normal works, with the only difference that the seventy years of protection start from the year of first publication, and that no one has the right to allow a use of that work or act against those who do use it without permission. For these reasons, the use of a protected work

[148] Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works.

constitutes infringement of copyright. If we add to that the fact that an author can always claim authorship of his work and promote an action against infringing uses, we see that the obstacle orphan works may constitute to diffusion of creative works is quite significant. Neelie Kroes, vice-president of the European Commission responsible for the digital agenda, outlined the magnitude of the problem in a 2011 speech addressing the orphan works challenge published on the European Commission's website: "The British library estimates that 40% of works in their collections are orphan and over 1 million hours of TV programmes from BBC archives are not used due to the impossibility or the disproportionate cost to trace rightholders – and the risk of a subsequent legal action is simply too great for this material to be made available online"[149]. A 2015 report of the U.S. copyright office on the issue of mass digitalization and orphan works refers to orphan works as "perhaps the single greatest impediment to creating new works"[150].

The legal uncertainty caused by orphan works has a particularly negative impact on the projects of mass digitalization of literary works that aim to transfer as much as possible of the world's culture online and grant access to the maximum number of people. As a consequence of the European digital agenda, the EU has adopted a directive[151] that establishes an exception to the protection of orphan works for certain uses made by Cultural Heritage Institutions. In the United States on the other hand, projects of legal reform on orphan works came close to be passed in 2008[152], pursuant to numerous suggestions made by the copyright office, but never did, hence cases on these matters are decided by the Courts according to the general exception of fair use.

We shall deal with this very specific and complex problem, created by orphan works in the new digital world, in more detail in Chapter 4. In the next Chapter we continue our study of the fundamental elemts of copyright, and how (if at all) they have been impacted by the digital revolution.

[149] Kroes, Neelie, "Neelie Kroes Vice-President of the European Commission responsible for the Digital Agenda Addressing the orphan works challenge IFRRO (The International Federation of Reproduction Rights Organisations) launch of ARROW+ (Accessible Registries of Rights Information and Orphan Works towards Europeana) Brussels, 10 March 2011. Available at: https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_11_163.

[150] Pallante, A. Maria, "Orphan Works and Mass Digitalization". Report of the United States Copyright Office (2015). Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf.

[151] Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works.

[152] The Shawn Bentley Orphan Works Act of 2008 was approved in the Senate but didn't reach the House in time to be discussed.

Chapter 3. Rightsholders and the Public: Striking a Balance

In Chapter 2 we have dissected the key components of copyright, the elements that justify property rights on an intellectual work: who can be considered to be an author, what works can be protected and the link between the two. Then we have seen that reality can be more complex than the simple scheme in which the author creates an original work and is automatically entitled to all economic and moral works on his creation. We have studied the special provisions that apply when more than one person is involved in the creative process, as it happens in collective and joint works, or when some rights are vested in a person other than the author (works-for-hire) or even when a work doesn't have an identifiable author.

Throughout the whole of the last chapter there has been an elephant in the room: we have focused on who is (or are) awarded protection by copyright law and what works can be protected but we haven't said a word on the content of this "protection". What rights are associated to a protected work? How many rights are there? Can the author sell them? Are they absolute? What are the remedies against infringement of such rights? In this third Chapter we will study the nature of the rights given to the author and try to answer these questions. As we have had the chance to understand in the previous sections of this endeavour, copyright is the attempt of the law to find the correct balance between the interests of those who create, those who commercially exploit, and those who enjoy creative works.

First, we shall study the content of the rights granted to the authors, how they are crafted to protect their interests when dealing with powerful distribution corporations and the control they retain on their creation even if they sell all the economic rights.

Then we will see how the legal system rewards commercial players as well: even though we are now far from the "best exploiter regime" we saw during the first centuries of copyright protection, it would be of little use to promote the creation of wonderful works of art, but have laws that hinder the interests of publishers, distributers and producers. They have traditionally been the link between the author and the public; they are those who can exploit economically a creation, generating profit for the author as well as for themselves, and making it known to the public, thus fulfilling the goal of copyright protection of increasing available culture and knowledge.

Finally, we shall study the laws regulating the relation between public and rightsholders: the limits such rights encounter in the public interest, and the remedies rightsholders have against infringement of their rights. Throughout the whole chapter we will study how these elements of

copyright protection have had to be revised in the digital era.

1. Exclusive Rights

From the moment an author expresses his work (in Italy) or fixates it (in the U.S.)[153], he is considered the "owner" of his creation. As we have seen before, "ownership" of an incorporeal work is quite different from regular ownership: a distinction between *corpus mysticum* and *corpus mechanimum* is needed in order to define exactly what is protected, and the law must place a web of rights upon the author in order for him to be able to control his creation.

Both legal systems that we are studying and comparing recognize two classes of exclusive rights to which the author is entitled from the moment of the creation of his work: moral and economic rights. Such rights are "exclusive" in the sense that every interaction with a protected work must be authorized, directly or indirectly, by the rightsholder. For instance, for me to lawfully read a book, the author must have authorized a publisher to print and sell a certain number of copies of said book and I must have bought one of the copies, thus acquiring the right to enjoy the work. The publisher was authorized by the author to interact with his work, such interaction being the printing of copies and their distribution to the public. I the reader was indirectly authorized by the author to enjoy his work when I bought the book. The owner of the work remains the author, for the publisher can only operate within the limits of the contract he signed with the author, and I can only read the copy I bought, while the author retains the right to authorize other interactions with his work.[154]

Before going any further we must clarify that exclusive rights are not absolute[155], for they are subject to many limitations and exceptions even in Continental States, as we will see in the second part of the present chapter. The extent to which exclusive rights are limited and watered down can be appreciated even before reading the actual provisions, just by counting them, for instance in the US all exclusive rights, moral and economic, are specified in just two sections[156], while limitations and exceptions are detailed in Sections 107 through 122.

1.1 Moral Rights

[153] For the difference between "expression" and "fixation" see Chapter 2, Section 2.2 (b).
[154] Adaptations, modifications, translations, modifications etc.
[155] Moral rights can be absolute in some Continental jurisdictions, like Italy. See *infra* section 1.1.
[156] Section 106 and Section 106° of the United States Code - Title 17.

1. Exclusive Rights

The expression "moral rights" is a direct translation of the French "*droit d'auteur*", and its roots can be traced back to German philosophers Kant, Fichte and Hegel[157]; Margaret Radin masterfully summarizes the substance of their thinking in the following phrase: "Only objects separate from the self are suitable for alienation"[158], and since we know that Continental doctrine is based on the theory that "the work incorporates the personality of the author"[159], it is only logical that legislation on author's rights protects the personal connection between the author and his work with specific provisions.

Copyright doctrine is on the opposite end of the philosophical spectrum with regards to moral rights[160], we have seen in the previous chapters that one of the key differences between the Anglo-American and the Continental approach is the role of the author. Copyright puts more importance on the public interest side of the creative process, and its discipline is more oriented to maximize fruition by the public and wide distribution. From the perspective of much copyright doctrine, economic rights are granted to authors by the legislator essentially as an incentive to keep them working and contributing to cultural progress: there isn't much room for the "personality" of the author and for his moral rights. We have said before that the Berne Convention requires moral rights to be protected, and since that the US is a member of that International treaty, it is required to recognise them and grant them at least some protection. As we shall see in this section however, and as one might expect, US Copyright legislation does so in a considerably weaker fashion than its Italian counterpart.

Even though the philosophical basis of moral rights was theorized in Eighteen century Germany, and the doctrine was first theorized in 1878 by French Jurist André Morillot[161], the

[157] For Kant's and Fichte's contributions to the philosophical development of moral rights see *retro* Section 2.2 of Chapter 1. For Hegel's philosophical views see Radin, Margaret J. *Contested Commodities*. (pp. 34 – 40). Cambridge, Massachusetts: Harvard University Press, 1996.

[158] Radin, Margaret J. *Contested Commodities*. (p. 34). Cambridge, Massachusetts: Harvard University Press, 1996.

[159] Rocherieux, J., "The Future of Moral Rights", Dissertation at the University of Kent (2002): 2.

[160] For a passionate critique of moral rights see Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle*. (p. 29 – 52). Princeton, New Jersey: Princeton University Press, 2014. For an outlook on the many scientific articles that oppose the centrality of the role of the author and the control he can exercise by law on his creation see the Review article Bently, Lionel, "Copyright and the death of the Author in Literature and Law", 57(6) Modern Law Review (November 1994): 973-986.

[161] In his article "De la nature du droit d'auteur, considéré à un point de vue général" published in the Revue critique de législation et de jurisprudence in 1878 and available for free consultation on the internet at: http://www.copyrighthistory.org/cam/tools/request/showRepresentation.php?id=representation_f_1878&pagenumber=1_26, André Morillot states at page 124 that "il est d'abord certain que l'auteur exerce sur son œuvre une pleine souveraineté morale, non.seulement avant, mais après la publication" (To begin with, it is certain that the author has full moral sovereignty over his work, not only before, but also after its

realization of a legal framework and their actual introduction in an international treaty is much more recent and is owed to fascist Italy. In fact, Italy was among the first States to introduce a legal discipline of moral rights in 1925[162], protecting the rights of attribution and integrity, forbidding changes detrimental to the moral interests of the author and even introducing a withdrawal right. At the Rome Conference of 1928 reforming the Berne Convention, in the words of Peter Baldwin[163] "Mussolini's Italy went furthest of all Countries to secure moral rights"[164], and the introduction of an article on moral rights, even if watered down to be accepted by common law States, was mainly due to the efforts of Eduardo Piola Caselli, Italian delegate and *rapporteur general* of the Conference.

The Berne Convention protects moral rights in article 6bis, as we have said, that provision was watered down during the negotiation process, and merely requires the members of the Convention to grant attribution rights "the right to claim authorship" and a right to the integrity of the work "to object to any distortion, mutilation or other modification […] which would be prejudicial to his honor or reputation". The right to claim paternity of a work is the most reasonable moral right, and protection of the right to integrity is very much limited by the fact that a prejudice to the honor or reputation of the author is required[165]. The absence of the two other moral rights, the *droit de divulgation* and the *droit de retrait*, combined with paragraph 2 of article 6, that allows member States "whose legislation, at the moment of their ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph" to "provide that some of these rights may, after his death, cease to be maintained", result in a very weak protection of moral rights under the Berne Convention. This result is perhaps inevitable in light of the fact that said provision had to be drafted so that it could be accepted by the common law and

publication) and that "[…] en expriment son œuvre sous des traîts qui la rendent sensible aux regards du public, et plus encore en la publiant, l'auteur prolonge en quelque sorte sa personalité, et la rend susceptible d'agressions qu'elle ne comportait pas auparavant" (In setting down his work in a form whereby it may be seen by the public, and even more so in publishing it,the author in some sense makes of his work an extension of his person, rendering it vulnerable to those attacks with which it was not threatened beforehand). Morillot fully theorizes for the first time the need for a complete system of moral rights as a protection of the author's personality, which is inevitably present in his work as a result of the creative process.

[162] We read at page 165 of Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle* published in Princeton, New Jersey by the Princeton University Press in 2014 that Romania was the first State to codify moral rights in 1923 and Italy came as a close second in 1925.

[163] History professor at the university of California.

[164] Baldwin, Peter. *The Copyright Wars: Three Centuries of Trans-Atlantic Battle*. (p. 165) Princeton, New Jersey: Princeton University Press, 2014.

[165] This restriction on the right to integrity was introduced in an effort to persuade common law countries to accept the introduction of art. 6bis on moral rights. Peter Baldwin tells us that Piola Caselli argued that common law Countries already protected this right through their laws against defamation.

member States[166].

Italian national law protects all four separate and independent rights identified by the French moral rights doctrine: the *droit de divulgation*, the *droit de retrait*, the *droit à la paternité* and the *droit à l'intégrité*[167], in articles 20-24 and 142-143. Italian doctrine considers the paternity right to be composed of four powers granted to the author: (a) the right to choose his identity, to remain anonymous or to use a pseudonym, (b) the right to reveal his identity as author of a work during a trial regarding that work and force his heirs to indicate his name as author said work, (c) the right to claim paternity of his work, and prevent third parties to do so and (d) the right to deny falsely attributed works. The right to integrity in Italian law allows the author to control any interaction with his work that might have the effect to modify it; he may successfully oppose modifications to his work even if he has granted the modifying party the right to do so, if that activity results in a modification of the work damaging to the author's honour and reputation. The "*droit de divulgation*", or to choose whether or not a work should be published is implicit in Italian law, and is fully accomplished by the "*droit de retrait*", granted in article 142-143, according to which "L'autore, qualora concorrano gravi ragioni morali, ha diritto di ritirare l'opera dal commercio [..]" (the author has the right to withdraw his work from trade, if this decision is based on grave moral reasons). The author is thus given total control over his work even after he has already signed a contract and decided to publish it, on the only condition that he compensates the damages. All moral rights are inalienable and last as long as the economic ones (with the exception of the "*droit de retrait*"), thus passing on to the heirs of the author.

The US Congress has not introduced a general discipline on moral rights after the 1989 access of the United States to the Berne Convention making the argument that "legal protection under other

[166] Another International treaty that declares the necessity of protection of moral rights but ended up drafting an even more generic rule is the Universal Declaration of Human Rights. Article 27 states that "Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author". This is an important recognition of the moral and economic nature of author's rights. However since the nature of these "moral interests" is not specified, article 27 risks to end up being an empty declaration of intents.

[167] These rights are best reconstructed and defined by Calvin Peeler in his essay titled From the Providence of Kings to Copyrighted Things (and French Moral Rights) published in 1992 in the Indiana International & comparative Law Review at page 427 in the following terms "The four separate and independent rights as previously mentioned are (1) the French droit de divulgation, which is the right of the author to decide whether or not the work is to be published; (2) the droit de retrait (ou de repentir), which is the author's right to withdraw the work from publication or to modify it even after it has been made public; 6 (3) the droit a la patemite, or the right of the author to have his name always associated with the work and to be acknowledged as its creator, as well as to disclaim authorship of works falsely attributed to him; and (4) the droit a l'integrite, which provides the author with the right to protect the author's work from alteration, mutilation, and excessive criticism without permission".

types of law such as unfair competition, defamation, privacy, and contract law were sufficient to protect moral rights"[168]. However at least some statutory protection of moral rights was introduced in 1990, though only for works of visual art[169], by the VARA (Visual Artists Rights Act). Section 106a of Chapter 17 of the United States Code gives the author of a work of visual art the rights of attribution and integrity. The right to integrity appears to be limited in section 106a (a) (3) (A) whereby a "distortion, mutilation, or other modification of that work which would be prejudicial to his or her honor or reputation […]" has to be "intentional" in order to violate the author's prerogatives. Another element that weakens this already watered-down version of moral rights is the fact that the author may waive them in written form; moreover, their duration is limited to the life of the author[170].

Having studied the nature and scope of moral rights from an historical point of view, at international level and in their application at national level in two Countries of opposite legal traditions, we shall now proceed to examine the other exclusive rights: economic rights.

1.2 Economic Rights

If moral rights allow authors and creators to take certain actions to preserve and protect their link with their work "Economic rights allow right owners to derive financial reward from the use of their works by others"[171]. The right to exploit economically a work, when we speak of copyright, consists of a

[168] Moser, J David & Cheryl L. Slay. *Music Copyright Law*. (p. 239) Boston, Massachusetts: Course Technology PTR, 2012.

[169] Section 101, Title 17 of the United States Code defines "works of visual arts" as "(1) a painting, drawing, print or sculpture, existing in a single copy, in a limited edition of 200 copies or fewer that are signed and consecutively numbered by the author, or, in the case of a sculpture, in multiple cast, carved, or fabricated sculptures of 200 or fewer that are consecutively numbered by the author and bear the signature or other identifying mark of the author; or (2) a still photographic image produced for exhibition purposes only, existing in a single copy that is signed by the author, or in a limited edition of 200 copies or fewer that are signed and consecutively numbered by the author". This very narrow definition is followed by a list of exceptions, amongst which the most notable is the one that excludes "any work-for-hire" from being considered a "work of visual art". Therefore, US legislation doesn't recognize moral rights to works-for-hire.

[170] Section 106a, subsection d, number 1 does state that moral rights of works created before the VARA enetered into force "shall be coextensive with, and shall expire at the same time as, the rights conferred by section 106". This is an exception to the general rule and, as time passes, and the number of protected works created before 1989 diminishes, it will be an increasingly more marginal provision.

[171] WIPO. *Understanding Copyright and Related Rights*. (p. 9) Geneva: World Intellectual Property Organization, 2016.

"bundle of different economic rights"[172] that might not only be characterized in different ways by different legislators, but also have a different content within the same legislation depending on the nature of the protected work. For instance, most legislations have specific rights that only apply to musical works, or to dramatic works, or to motion pictures.

The understanding of this "bundle of rights" is made even more complicated by the fact that each right is independent from the others, and that there are cases in which one use of a work entails multiple rights. This problem is particularly evident in our Digital age, in which any act of distribution or of making available of copyrighted material implies that our device makes at least one copy in its RAM. If we add to this already chaotic landscape the complexity of works made by more than one person, the difficulties seem almost insurmountable.

In the following sections we will describe the three main economic rights one by one, in an effort to reconstruct their meaning in a digital world. We shall study reproduction rights, distribution rights, and all the rights of communication to the public, be it public performance, the making the work available or any other way of communicating it and showing it to the public. The right to make derivative works we have already examined indirectly in the previous chapter in the section dedicated to derivative works (see *retro* section 3.2).

a. Right of Reproduction

The right of reproduction is the most fundamental right attributed to authors: it's the right to make copies, which is the traditional way in which protected works are economically exploited; it is so deeply connected to the idea of protection of author's rights that it even gave the name to that discipline in the English language "copyright". For these reasons it is all the more surprising to find out that it was explicitly recognized in the Berne Convention only after the Stockholm revision of 1967, in Article 9 "(1) Authors of literary and artistic works protected by this Convention shall have the exclusive right of authorizing the reproduction of these works, in any manner or form. (2) It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author. (3) Any sound or visual recording shall be considered as a reproduction for the purposes of this Convention".

[172] Lee, Jyh-An, "Overlapping Rights in Different Business Models". Article in Liu, Kung-Chun & Reto M. Hilthy (eds). Remuneration of Copyright Owners, vol 27. (p. 6). MPI Studies on Intellectual Property and Competition Law. Berlin, Germany: Springer-Verlag GmbH, 2017.

Before that date, the Berne Convention did contain provisions protecting the right of reproduction in some specific cases, for instance article 6 in the 1886 original text expressly recognized the exclusive right of the author of a written work to make copies of translations of his work, and article 9, before the 1967 version, stated that written works published in newspapers and periodicals "may not be reproduced in the other countries without the consent of the authors". A generic right of reproduction, however, couldn't be found in the treaty.

The reason for such a late introduction of a general reproduction right can be found in the struggle of early doctrine to define the scope of this exclusive right: if in the beginning the act of reproducing a work could be reduced to printing a copy, the advent of new technologies made it possible to make three dimensional reproductions of two dimensional works. In the music sector, this represented a true revolution: musical works had always been written on paper, which could be protected as a written text, and the public could only enjoy live executions. With the invention of the first generation of pianolas, barrel organs and *boites à musique*, however, it became possible to reproduce musical works in a way that allowed the public to enjoy the sounds. Some legal systems[173] refused to recognize phonographic copies of musical works as "reproductions" because the work couldn't be seen with the naked eye and couldn't be enjoyed directly, but only in a mediated way after it was processed by a machine. Only after the invention and commercial success of vinyl discs did the right of reproduction begin to be granted to phonorecords as well. Traces of these arguments of the past can still be seen in the wording of the US provision that grants authors the right "to reproduce the copyrighted work in copies or phonorecords"[174]: the right of reproduction has been recognized upon works that can be perceived only with the mediation of a machine, but even though they are awarded the same rights as copies of written text, there is still a distinction between "copies" and "phonorecords"[175].

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[173] In the White-Smith music publishing company v. Apollo company decision of 1908, the Supreme Court held that Perforated papers which reproduced musical works when inserted in machines could not be considered copies within the scope of the legislation of the time. The Court found that, since no one would be able to read the music in a metallic roll or a perforated paper, it didn't meet the requirements for "fixation", and the metallic roll or perforated paper was to be considered part of the machine. The Court did imply that these reproductions of musical works might constitute infringement of author's rights under the 1897 Act for the protection of music against unauthorized public performance, if the plaintiff had sued for the infringement of his right to authorize public performances. The copyright Act of 1909 in some way overcame this decision of the Court in Section 25 (e), where it granted some legal damages and compulsory royalties to be paid to the composer by the unauthorized manufacturer of mechanical copies of musical works. Full recognition of mechanical records of music as "copes" however only came in the 1976 copyright act.

[174] Section 106 (1) of the United States Code - Title 17.

[175] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (p. 40). Dritto Delle Nuove Tecnologie – Internet Informatica

1. Exclusive Rights

Just like the invention of the printing press and the ability to produce a massive number of copies of written works was the direct responsible for the origin of copyright (the right to make copies), and the invention of phonorecords caused philosophical problems to the concept of reproduction, the big technological novelty of our times, the digital revolution, has had an impact on the copyright system as well, and even more on its most fundamental right, that had to be completely re-thought in order to be adapted to the nature of digital content. When the first legislation on copyright was developed, copies were tangible, durable and enabled their owner to directly see and enjoy the work that had been reproduced. With the advancement of technology, these qualities don't necessarily characterize copies anymore, and our understanding of reproduction has had to evolve to accommodate new ways of copying.

We have already seen that the invention of phonorecords meant that copies of a work were still tangible and durable (vinyl discs), but no longer could the content of the work be directly enjoyed. With the invention of computer technologies and the development of the Internet, copies of works not only couldn't be directly enjoyed by the owner without the mediation of a machine but weren't necessarily tangible nor always durable anymore. In order to understand the digital impact on the right of reproduction we shall now go for a brief technical excursus.

An informatic system can interact with protected material in three ways. The first and less problematic from the point of view of the legal protection of the right of reproduction are interactions with works stored in the so-called Read Only Memory (ROM). This type of memory is non-volatile, meaning that it holds its memory even when power is removed, and it isn't possible to erase it or modify it. It's usually used to store the computer's firmware[176], or in CD-ROMs to store protected works such as movies or songs, that can't be modified, erased or copied. In this case, though the support only holds a series of electric impulses, the result is similar to a phonorecord in that the protected work is permanently stored in a tangible medium and it can be perceived only through a machine.

The second type of interaction between a computer and a protected work is the installation of software. In order to work, software must be installed, this means that at least some of its parts must be copied from the support where it is stored into the computer.

The third type of interaction of an informatic system with a protected work is the one that happens when it copies it in the Random-Access Memory. This type of memory is of volatile nature,

Telematica. Milano: Giuffrè, 2005. Phonorecords were recognized to be equal to copies only in the 1976 Copyright Act.

[176] Firmware is a software program permanently etched into a hardware device, it's the most basic type of code that makes possible the interactions between software and hardware in a computer.

meaning that it can't hold information after the power is switched off, it is instrumental to the perception of information. Whenever we are using a software (like a videogame, or a word processor, or an anti-virus), a part of it has been copied in the RAM. Whenever we surf the web and visit a webpage, the work we are reading or watching or listening to, has temporarily been copied to the RAM of our device.

In the interactions described at point one, the problem was to include in the concept of "copies" material that couldn't be perceived without mediation from a machine and wasn't a phonorecord. In the interactions described in points two and three we find the rights of copyright owners and those of lawful users overlapping. Before the invention of computers, the act of reproducing a work was only functional to its economic exploitation and could only be performed or authorized by the author (or rightsholder). After the invention of computers on the contrary every act of enjoyment of a work implies a reproduction. It became necessary to make a distinction between lawful reproductions made by the user in order to enjoy the protected work, and unlawful reproductions that infringed on the author's reproduction right and his exclusive right to exploit economically his work.

How did the international community and national legal systems deal with the digitalization of content? after the invention of phonorecords, the concept of "phonorecord", distinct from the concept of "copy" was developed and placed on the same level of "copies" in regards to the right of reproduction. The approach adopted towards digital copies has been more comprehensive: instead of developing a separate notion of "digital copy", legislators across the world and States in International treaties have opted for a broadening of the scope of the concept of "copies".

The most recent version of the Berne Convention dates back to 1971, and it was last amended in 1979, before digitalization really took off. The Berne Convention however isn't the only international treaty on copyright, and it has now come the time to introduce the World Intellectual Property Organization. The WIPO was established in 1967, came into force three years later, it's part of the United Nations as a self-funding agency since 1974 and counts 193 Member States. It took over the functions of the United International Bureaux for the protection of Intellectual Property, which was established in 1893 with the task of administering the Berne Convention for the protection of literary and artistic works and the Paris Convention for the protection of Intellectual Property.

WIPO's mission according to the statement on their official website is "to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all". And lead they did in 1996 when they recognized "the profound impact of the development and convergence of information and communication technologies on the creation and

use of literary and artistic works"[177] and promoted a Copyright treaty with the aim to "introduce new international rules and clarify the interpretation of certain existing rules in order to provide adequate solutions to the questions raised by new economic, social, cultural and technological developments"[178].

The close connection between this treaty and the Berne Convention is made clear in Article 1, titled "Relation to the Berne Convention". Paragraph one clearly states that "This Treaty is a special agreement within the meaning of Article 20[179] of the Berne Convention […]", and hints to the fact that this treaty can be considered more of an update of the Berne Convention, than an autonomous document. In particular, the fact that all Member State of the WIPO treaty "shall comply with articles 1 to 21 of the Berne Convention" both subordinates the new provisions to the rules of the Berne Convention and allows the 1996 Conference to specify the content of some Berne Convention Articles. This is exactly what was done in some of the "Agreed Statements concerning the WIPO Copyright Treaty"; the first is the one that concerns us the most as its titled "concerning Article 1(4) and clarifies the meaning of Article 9 of the Berne Convention on the Right of Reproduction: "The reproduction right, as set out in Article 9 of the Berne Convention, and the exceptions permitted thereunder, fully apply in the digital environment, in particular to the use of works in digital form. It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention". At international level we see that the comprehensive formula adopted in 1971 to define the scope of the right of reproduction was broad enough to include digital reproductions, although such inclusion had to be specified in a later document. But how did national legislators in the US, the EU and Italy adapt the right of reproduction to the digitalization?

The US Copyright Act in Section 106 states that "[…] the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: (1) to reproduce the copyrighted work in copies or phonorecords; […]". The definitions of "copies" and "phonorecords" are found in Section 101: ""Copies" are material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term "copies"

[177] Preamble to the WIPO Copyright Treaty, Geneva 1996.
[178] Read note 25.
[179] Article 20 of the Berne Convention regards "Special Agreements Among Countries of the Union" and says "The Governments of the countries of the Union reserve the right to enter into special agreements among themselves, in so far as such agreements grant to authors more extensive rights than those granted by the Convention, or contain other provisions not contrary to this Convention. The provisions of existing agreements which satisfy these conditions shall remain applicable".

includes the material object, other than a phonorecord, in which the work is first fixed" and "-Phonorecords- are material objects in which sounds, other than those accompanying a motion picture or other audio-visual work, are fixed by any method now known or later developed, and from which the sounds can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term "phonorecords" includes the material object in which the sounds are first fixed". The wording "[…] by any method now known or later developed […]" and the fact that the work and phonorecord can be "perceived, reproduced, or otherwise communicated either directly or with the aid of a machine or device" present in both definitions makes the right of reproduction flexible and ensures that will be possible to adapt it to technological evolution.

The EU and Italy should be considered together, since the provisions of the EU directive 2001/29/EC (also known as the Information Society directive) had to be replicated in the legal system of every Member State of what was the European Community at the time. Being the Directive aimed at harmonizing aspects of copyright in the Information society, the right of reproduction is extremely broad: article 2 states that "Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part". Perhaps unsurprisingly, Art. 13 of the Italian copyright law on the right of reproduction, as modified by D.lgs.[180] 68/2003 is an almost verbatim translation of the EC directive "Il diritto esclusivo di riprodurre ha per oggetto la moltiplicazione in copie diretta o indiretta, temporanea o permanente, in tutto o in parte dell'opera, in qualunque modo o forma, come la copiatura a mano, la stampa, la litografia, l'incisione, la fotografia, la fonografia, la cinematografia ed ogni altro procedimento di riproduzione." (the exclusive right of reproduction concerns the multiplication in copies either directly or indirectly, temporarily or permanently, in whole or in part of a work, made in any shape or form, using any method like copying by hand, printing, lithography, engraving, photography, phonography, cinematography and any other method of reproduction). What is surprising however is that the original version of Italian copyright law was adopted in 1943, and Article 13 wasn't modified until 1943. The Italian right of reproduction, contrary to what we have seen in U.S. legislation was very broad from the start and didn't really require modifications in order to apply to new inventions and methods of making copies[181].

[180] D.Lgs. is the abbreviation of "decreto legislativo", which is a government decree with the force of law.

[181] The original article 13 had a similar structure to the one that substituted it in 2003: "Il diritto esclusivo di riprodurre ha per oggetto la moltiplicazione in copie dell'opera con qualsiasi mezzo, come la copiatura a mano, la stampa, la litografia, la incisione, la fotografia, la cinematografia e ogni altro mezzo di riproduzione" (the exclusive right of reproduction concerns the multiplication in copies of a work in any manner, like copying by hand, printing, lithography, engraving, photography, cinematography and any other method of reproduction). It is evident the introduction of phonography among the examples of ways of

1. Exclusive Rights

In the last paragraph we have shown how different legal systems have solved the problem of expanding the concept of copy and the application of the right of reproduction to works, other than phonorecords, that can only be perceived indirectly through a machine. We have seen how some States, such as the U.S., faced difficulties in enforcing the right of reproduction at the beginning of the Twentieth century because of their technology dependent conception of the act of copying. Physical copies of musical works that allowed the owner to enjoy the work with the mediation of a machine had to be defined separately from normal copies. With the digital revolution however the solution, both in the U.S. and in States that already adopted a broad definition of "copies" and "reproduction", has been to make these two concepts technology neutral. In this way, the problem of the right of reproduction has not only been solved in regard to digitalization, but also to any future technological development that might change the way we are able to reproduce protected works.

All this, however, only deals with the first type of interaction between protected works and machines, it doesn't cover the others. The second type of interaction between a work and a machine, which was dealt in a very similar way both in the U.S. and in the EU/Italy: volatile reproduction in the RAM is considered a reproduction even though it is temporary, and a series of exceptions to the right of reproduction were introduced in order to allow lawful users to utilize computer programs. Section 117 of the U.S. copyright act is entitled "Limitation on exclusive rights: Computer programs", and its first paragraph "making of additional copy or adaptation by owner of copy" deals precisely with this issue by authorising "the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided: (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner". The EU deals with the same issue in a very similar way in Art. 5(1) of the software directive[182] whereby are established a series of exceptions akin to those present in the American legislation. With the sole exception of paragraph 3, which introduces the right of the lawful user to study the "ideas and principles which underly any element of the program". However, since ideas and principles are not subject to copyright protection anyways, the relevance of this provision remains dubious.

The third type of interaction, browsing, caching and streaming was dealt with by the WCT of

reproductions in the 2003 version, it is however not essential because the list is merely illustrative and the last part of the provision "any other method of reproduction" would include phonograms anyways. It is also interesting to notice that while the U.S introduced a completely new and different conception of reproduction with "phonorecords" separate from regular copies, the Italian law simply included phonograms in what can considered a copy and is therefore protected by the right of reproduction.

[182] Directive 2009/24/EC Of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs, based on Directive 91/250/EC.

1996 by introducing a new right, that of making a work available to the public; the EU and Italy accordingly approved provisions which explicitly granted such right, while the U.S. Congress' opinion was that such right could already be inferred from existing legislation. We shall deal with these aspects in more depth infra in subsection 1.2 (c). We may anticipate however, that "Temporary acts of reproduction[…] which are transient or incidental [and] an integral and essential part of a technological process and whose sole purpose is to enable: (a) a transmission in a network between third parties by an intermediary, or (b) a lawful use" and that have no independent economic value are not restricted by the right of reproduction.in the EU and Italy thanks to the express exception found in the aforementioned article 5 of the InfoSoc Directive. In the US the same online activities are not hindered by Section 6 thanks to the fair use doctrine[183]. Browsing, caching and streaming being exempted from the right of reproduction, they found protection in the right of Making available to the public, a new right developed to cope with the digital revolution which we'll examine further down this section.

In the next subsection we shall deal with the other economic exclusive right traditionally associated to copyrighted works, the right of reproduction. Our understanding of this right is functional to appreciate the fact that the digital revolution not only made possible an unprecedented level of access to intellectual works, but also created the need for more control by the rightsholders over their protected works. In the analogic age, a rightsholder had the right to reproduce and distribute his work to the public, a user would buy a copy and fully own it, with the only prohibition to make copies. The only cases in which a copyrighted work couldn't be owned and remained under control of the rightsholder, were live performances, broadcastings and movies in the cinemas. In the digital world the danger is represented by the fact that virtually any work can be enjoyed through the internet, but the full property of a digital copy to a user would enable him to copy it and potentially distribute it without costs in large volumes, therefore new ways of making content available to the public have been invented, that allow the owner to maintain control over his work even after it is introduced into the market. The aim of digital copyright must be to grant authors the rights they need to effectively exploit economically their works, without suffocating the potential of the internet; the dangers are blocking all sharing of works and making the web a pay for play environment. We shall see that the right of distribution rarely applies anymore to digital content, as it would limit the control of the author on his work because of the first sale doctrine[184].

[183] See *infra* Section 3.

[184] After the first lawful commercial sale the rightsholder loses all control over the copy that has been sold. That copy can't be replicated nor can it be rented, but it can be resold. For more on the first sale doctrine/exhaustion, which is the limitation to the right of reproduction, see *infra* subsection 6.

b. Right of Distribution

The right of distribution is an exclusive economic right thanks to which the rightsholder, generally the author, can control the transmission of his work to the public. This right in combination with the right of reproduction represents the core of the discipline that enables rightsholders to exploit economically their work. The scope of such right can be better understood with the French expression "*mise en circulation*"[185] (the act of putting into circulation), which shows more clearly the fact that the right of controlling distribution is limited to the first lawful commercial transaction[186]. We shall deal in more depth with this limitation of author's rights in the section of this chapter dedicated to limitation and exceptions. It is however important to grasp at least its fundamental characters because on this limitation rests the difference between the rights of distribution and of communication to the public/making available. The first sale doctrine, in the U.S.[187] or exhaustion, in international law[188] and in EU[189] legislation, is integral to the right of distribution: it isn't merely a limitation, it defines the essence of this right[190].

The Berne Convention doesn't contain an article dealing with the right of distribution as such. Let it be enough to know that until the Brussels Revision of 1948 there was no direct mention of a distribution right at all. Even the current version of the Berne Convention, only grants distribution rights to authors of certain specific works. In art. 14 it states that "Authors of literary or artistic works shall have the exclusive right of authorizing: (i) the cinematographic adaptation and reproduction of these works, and the distribution of the works thus adapted or reproduced; […]"[191] and art. 14bis expands such right to the owners of cinematography works "The owner of copyright in a

[185] Which is the French translation of the word "distribution" in Art. 14 of the Berne Convention that grants the right of distribution to "Authors of literary works".

[186] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (p.103). "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica". Milano: Giuffrè, 2005.

[187] Section 109 of United States Code - Title 17.

[188] Art. 6 of TRIPS, Art. 6 of the WCT.

[189] Art. 4, Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society.

[190] There are of course a few exceptions to this exception: authors of certain specific categories of works that retain some sort of control or economic right on their works even after the first sale. But the exceptional nature of these cases is confirmed by the fact that the author is then considered to have a separate right, the *droit de suite.* For more on L&E's and on this subject see *infra* section 6 of the present chapter.

[191] As modified during the aforementioned Brussels Revision of 1948.

cinematographic work shall enjoy the same rights as the author of an original work, including the rights referred to in the preceding Article"[192].

The Berne Convention rules on distribution had to be updated by the WIPO treaties of 1996, both to introduce a general right, and to cope with digitalization. The principal issue in this field was on the type of right that had to be granted to authors in the case of digital material. The options were two: expand the exclusive right of distribution to include digital copies not fixed in a tangible autonomous support, and compensate the negative effects of exhaustion, or create a new diffusive right specifically designed to make sense in a digital environment. These two different approaches reflect the opposite views of the United States and the European Community delegations, the first being the road chosen by the U.S. in their federal legislation and the second being the choice for future legislation in the EU and in its Member States.[193]

The definitive text of the WCT establishes a right of distribution in Article 6: "(1) Authors of literary and artistic works shall enjoy the exclusive right of authorizing the making available to the public of the original and copies of their works through sale or other transfer of ownership. (2) Nothing in this Treaty shall affect the freedom of Contracting Parties to determine the conditions, if any, under which the exhaustion of the right in paragraph (1) applies after the first sale or other transfer of ownership of the original or a copy of the work with the authorization of the author", and defines in the following way the term "copies" as used in Article 6 and 7[194]: "[…] As used in these Articles, the expressions -copies- and -original and copies-, being subject to the right of distribution and the right of rental under the said Articles, refer exclusively to fixed copies that can be put into circulation as tangible objects"[195]. The wording of the WCT article, in combination with the agreed statement, showcases the adoption of the EC approach. It must be noted however that the WIPO Copyright Treaty and the Agreed Statement, according to legal doctrine[196], indicate a minimum level of protection, and would not constitute an obstacle to extending distribution rights also to digital copies. The consequence of this consideration is that the States that signed the treaty can choose the path to follow: we shall see in the remaining part of this chapter how the opposite approaches of the

[192] Article introduced during the Stockholm revision of 1967.

[193] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (pp. 110-112). "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica". Milano: Giuffrè, 2005.

[194] Article 7 of the WCT is about the right of rental.

[195] WCT - Agreed Statements concerning the WIPO Copyright Treaty, adopted by the Diplomatic Conference on December 20, 1996.

[196] As quoted in Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (p. 116). "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica". Milano: Giuffrè, 2005.

United States and the European Community (now EU)/Italy have been implemented in their national legislations.

Section 106(3) of the U.S. Copyright Code[197] establishes the exclusive right "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending". As we have already seen, Section 101 of the same Statute defines copies and phonorecords as material objects; hence the combination of these two provisions would seem to prohibit the extension of the distribution right to digital copies transmitted over the internet. The U.S. Copyright Office however, in a 2016 paper on the making available right in the United States[198], when examining this possible problem regarding the extension of the distribution right to digital copies finds that " Such a narrow view of the distribution right, of course, would wholly upend protections for copyright owners online and therefore defeat the very purpose of the WIPO Internet Treaties—that is, to confirm exclusive rights for copyright owners in the digital age. And, we are aware of no court in the United States that has adopted this extreme position"[199]. This view is well explained and exemplified by the District Court of Massachusetts in the London-Sire Records, Inc v. Doe 1 case of 2008[200], regarding the illegal distribution of digital phonograms, in which the reasoning of the judges can be well applied also to digital copies. The Court found that "any object in which a sound recording can be fixed is a -material object-", when a user downloads a song (or any file, for that matter), a digital sequence representing the sound recording is sent to his computer and "magnetically encoded in a segment of his hard disk […] The electronic file (or, perhaps more accurately, the appropriate segment of the hard disk) is therefore a -phonorecord- within the meaning of the statute". Having established that, the Court went on to determine that "while the statute requires that distribution be of -material objects-, there is no reason to limit -distribution- to processes in which

[197] United States Code - Title 17

[198] As we have studied earlier in this section, the making available right has been introduced as an autonomous right in the 1996 WCT as it was proposed by the EC delegation. The US delegation on the other hand pushed for an expansion of existing exclusive rights in the digital world, which thing we might remember is not prohibited by the WCT because it would be considered to b a higher level of protection than that present in the treaty, as the making available right is part of the diffusive rights, generally granted as related rights, while the bundle of rights in Section 106 of the US Copyright Code grants exclusive right. The making available right is therefore granted in United States legislation thanks to a combination of the bundle of rights that listed in Section 106. The examination of the distribution right as applied to digital material made in the US Copyright Office Document here referenced is therefore relevant to the subject of the paper as the extension of that right, along with the other exclusive rights, to digital material is functional to granting the right of making available in the US jurisdiction.

[199] Pallante, A. Maria, "The Making Available Right in the United States". *Report of the United States Copyright Office* (2016): 20. Available at: https://www.copyright.gov/docs/making_available/making-available-right.pdf.

[200] London-Sire Records, Inc. v. Doe 1 – 542 F. Supp. 2d 153 - United States District Court, D. Mass. 2008.

a material object exists throughout the entire transaction as opposed to a transaction in which a material object is created elsewhere at its finish". Lastly, the Court focuses on the ratio of Section 106(3), which is to ensure "the ability of the author to control the market, it is concerned with the ability of a transferor to create ownership in someone else, not the transferor's ability simultaneously to retain his own ownership" and proves the righteousness of its findings by analysing the rationale behind Section 109 and the first sale doctrine: " The author controls the volume of copies entering the market, but once there, he has no right to control their secondary and successive redistribution". In the case of digital sharing of copyrighted materials, the owner of a lawfully acquired copy of a protected work could share his copy with a potentiallt limitless public, while retaining control of his copy, thus infringing both the right of reproduction of the rightsholder, because each act of sharing implies a reproduction, and his right of distribution, because the total number of copies circulating in the market would not be controlled by the rightsholder.

The judges in the case we have just reviewed managed to expand the concept of distribution, as written before the digital revolution, to digital material: they found that digital phonorecords (and copies) are fixed in "material objects" after all, that their tangibility isn't required throughout the process of transmission, and that the first sale doctrine doesn't apply to digital works distributed through the internet. These arguments are the essence of the U.S. approach, which managed to transfer in the digital world its analogic provisions. However, it's easy to notice that such process is quite complex and requires a huge interpretative effort[201]. We shall study in the next subsection how the right of distribution not only was applied to digital material, but also used in combination with the other exclusive rights in order to ensure digital authors a "right of making available to the –digital-public" as needed in the Internet age and as prescribed in Article 8 of the WCT.

The EU, and consequently the Italian national legislation, have gone through a different road: when an act of making available to the public is made offline, it falls under the right of distribution, when it is made online, it is qualified as a an act of communication to the public. This simplifies both the protection of author's interests after the dissemination of digital content, since it falls under an *ad* hoc discipline, and the study of the right of reproduction, because it essentially kept the characteristics it had in the analogic era. Recital 29 of Directive 29/2001, the InfoSoc directive with which we should by now be well acquainted says that "Unlike CD-ROM or CD-I, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line service is in fact an act which should be subject to authorisation where the copyright or related right so provides" and

[201] Not all these adaptation efforts are based on interpretation though. Section 115 of the US Copyright Code, on compulsory licenses for making and distributing phonorecords of nondramatic musical works, openly extends the right of distribution to digital transmissions of phonorecords.

combined with article 3 on the "Right of communication to the public of works and right of making available to the public other subject-matter", which covers "any communication to the public of their works, by wire or wireless means" is considered to exclude the application of the right of distribution to digital content. A further confirmation of the righteousness of this interpretation is that recital 29 also states that "The question of exhaustion does not arise in the case of services and on-line services in particular". It is pretty clear that unlike US doctrine and case law, this directive doesn't consider digital copies fixed in a partition of a computer hard disc to be "copies" in a traditional sense that would subject them to the right of distribution. Nevertheless, the approach of applying a right of communication to the public to digital content was only taken up by the EC in 1996; before that time the direction seemed to be that of applying exclusive rights to digital content, and to expand the notion of "rental" to certain uses of digital content in order to avoid exhaustion. Directives 91/250 on computer programs, 92/100 on rental right and lending right and on certain rights related to copyright in the field of intellectual property, and even directive 96/9 all went in this direction[202]. With the approach of the EU having switched to considering making available to the public a diffusive rights similar to the right of communication to the public, it seems like the software and database directive have given rise to a *lex specialis* in which digital distribution and exhaustion are possible in EU law[203].

Italian legislation on the distribution right is essentially modelled after Recital 29 and article 4 of the InfoSoc directive according to which "1. Member States shall provide for authors, in respect of the original of their works or of copies thereof, the exclusive right to authorise or prohibit any form of distribution to the public by sale or otherwise. 2. The distribution right shall not be exhausted within the Community in respect of the original or copies of the work, except where the first sale or other transfer of ownership in the Community of that object is made by the rightholder or with his consent", it retains however traces of an evolution of the concept of distribution.

Article 17 of the Italian Copyright law is the one that deals with distribution. Paragraph one states that "Il diritto esclusivo di distribuzione ha per oggetto la messa in commercio o in circolazione, o comunque a disposizione, del pubblico, con qualsiasi mezzo ed a qualsiasi titolo, dell'originale dell'opera o degli esemplari di essa […]" (The exclusive right of distribution consists in the original work or its copies being put on the market or in circulation or made available to the public by any means and for any purpose). The reference to an act of making available a work as part of the right

[202] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (p. 118-122). "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica". Milano: Giuffrè, 2005.

[203] For a focus on digital exhaustion as it is possible in regards to software see *infra* section 5 of the present chapter.

of distribution is a trace of the 1994 D.Lgs.[204] that uniformed Italian copyright legislation to EEC Directive 92/100, which was part of the pre-1996 approach, when exclusive rights (rental, distribution etc.) were applied to digital content. Confusion between the right of communication to the public established in art. 16 of the Italian law and the reference made to the activity of making available to the public made in Article 17 is avoided thanks to paragraph 3 of the latter, which creates an exception to exhaustion (established in paragraph 2) for works that are made available to the public within the meaning of art. 16.

At the end of this thorough examination of the right of reproduction across many legal systems, the offline world and the online world, it is noticeable that the difference in doctrine and policy pertaining the application of this right bear great consequences and further differences in other fields of digital copyright: software protection, the right of making available to the public, the role of the right of reproduction in the digital age, just to name a few. The only common feature is the limit placed by exhaustion or by the first sale doctrine on the control an author can exercise over the distribution of his work. we shall examine this limit, with a particular attention to its application to the distribution of software *infra* in section 5. In the next subsection we shall deal with the right of making available and complete many of the considerations began in the present subsection.

c. The Right of Communication to the Public: Making Available in the Digital World

The international community was well aware that the Berne Convention, the main treaty governing copyright, established in the nineteenth century and last amended in the seventies, was inadequate to tackle the new challenges arising from digitalization. Therefore, after two decades of "guided development", a strategy that consisted in a combination of recommendations, guiding provisions and principles, rather than preparing a new Conference on copyright, the WIPO established two Committees in 1991 that had the goal of considering the new issues arising from emerging

[204] Article 17's modification wasn't strictly essential for the application of that directive in the Italian legislation. The main innovations were the attribution of an express right of distribution to producers of phonograms, which was before only granted to them indirectly through the attribution of the right of reproduction of phonograms and their commercialization. And the attribution to performers of a previously non-existent right of distribution to protect fixations of their performances.

technology, and laid the groundwork for the WIPO treaties[205] of 1996[206].

The act of communicating a work to the public should encompass all activities that allow the public to learn the content of that work neither by consulting a copy nor through mechanical instruments[207]. The Berne Convention however divides it into three distinct faculties granted in Articles 11, 11-bis and 11-ter. First is the right of public performance, established in Art. 11, whereby "(1)Authors of dramatic, dramatico-musical and musical works shall enjoy the exclusive right of authorizing: (i) the public performance of their works, including such public performance by any means or process;". Ricketson's research on the first one hundred years of the Berne Convention gives us an important insight on the notion of "performance": he finds that in its ordinary meaning, it only refers to "presentations by human actors and performers"[208]. The Stockholm conference of revision to the Berne Convention introduced a novelty to this conception of public performance in the second part of art. 11(i), in order to include "the public performance of works by means of sound recordings, tapes and other devices in which these works may be embodied". The core characteristic of "public performance" therefore is the presence of the public in the place in which the work is performed.

Art. 11(1)(ii) introduces a right of communication by wire for the same category of authors who were granted the right of performance; which was extended to authors of literary works, for certain uses of such works by art. 11-ter, in respect to the recitation, and art. 14 in respect to the cinematographic adaptation. Art. 11-bis, approved during the Rome Conference of 1928 introduced the broadcasting right for the protection of wireless communications of works. Those last rights, of public communication and of broadcasting, are intended to rule works which are transmitted by technological means and are enjoyed in a place different from the one where they are performed, either by humans or by machines. However, they were intended for a passive audience. The reason why a new right needed to be added to this "family" were essentially three: the fact that internet and digital technologies are characterized by interactive transmission of material, which that users may

[205] The WCT for the protection of authors of literary and artistic works; and the WPPT which protects performers and producers.

[206] For more details on the historical reconstruction of the events leading to the 1996 WIPO treaties see Pallante, A. Maria, "The Making Available Right in the United States". *Report of the United States Copyright Office* (2016): 10-11. Available at: https://www.copyright.gov/docs/making_available/making-available-right.pdf.

[207] Opinion expressed by Paolo Marzano in *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* (p. 134). "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica". Milano: Giuffrè, 2005.

[208] Ricketson, S. *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986.* (p. 58). London: Centre for Commercial Law Studies, Queen Mary College, 1987.

access protected works from any place and at any time, according to their preferences and choosing, which wasn't possible when wire and wireless transmissions were regulated in the Berne Convention, hence those rights only take into account the will of the broadcaster/communicator to transmit the material, not the actions of the public to access it. The second reason was that, though the broadcasting right (covering, we repeat, wireless transmissions) was granted to all protected works, many works are excluded from the protection of the right of communication to the public (transmissions through wires): literary works which are not recited, including software, the written form of dramatic, dramatico-mucisal and musical works, graphic and photographic works. The level of diffusion of this type of works in digital form makes it impossible to think of leaving them unprotected. The third reason is that art. 11bis would allow national legislators to introduce compulsory licenses for all digital material that is broadcasted.

It was only logical for the WIPO Committees of 1991 and subsequent treaties of 1996 would craft a right of communication to the public[209] specifically though to tackle the new needs arising from digital interactive communications. The right of making available, as defined in Art. 8, provides as follows "Without prejudice to the provisions of Articles 11(1)(ii), 11bis(1)(i) and (ii), 11ter(1)(ii), 14(1)(ii) and 14bis(1) of the Berne Convention, authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them". The efforts of the treaty parties in formulating a provision that could withstand the passing of time and future technology developments have been fruitful: the right of making available is technology neutral and focuses on access rather than physical reception of a tangible copy. The importance of the first characteristic of article 8 is that it makes the right of reproduction suitable to be applied to any present or future method of digital transmission. The significance of the latter is that a copyright owner can claim infringement in any case in which his material is uploaded to a publicly accessible network, without having to prove the existence of actual downloads or further reproductions.

In the previous subsection, dealing with the distribution right, we have already anticipated some of the issues concerning the making available right. If many WCT (and WPPT) signatories, such as the European Community (now European Union) and its Member States, have introduced in their legal systems provisions that created a new right of making available for regulating online distribution and communications of copyrighted materials, the United States, both through their delegations participating at the 1996 Conference and in their National Courts have sought of obtaining

[209] The expression "communication to the public" is here used in its atechnical generaic meaning of making something known to a generic pool of people.

the same effects through interpretation of existing exclusive rights. The reason for both these approaches being respectful of the 1996 treaties is that a compromise was adopted during the negotiations in order to make the new right acceptable to everybody: a solution called "the umbrella solution" that did not refer to the new right neither as distributive nor diffusive thus allowing it to "[…] be implemented in national legislation through application of any particular exclusive right . . . or combination of exclusive rights, as long as the acts described in [the treaty] Articles were covered by such rights"[210]. Hereinafter we shall compare in detail the opposite choices of the US and the EU, to try and evaluate whether they managed to obtain the results prescribed by the WIPO treaties and if the introduction of a specific rights for the digital world has actually proven to be more straightforward than transferring to that reality existing concepts and rights, as it would seem at a first glance.

The implementation of the right of making available in the United States legal system is described as follows in the U.S. Copyright Office 2016[211] report on the subject:

(i) The view of the copyright office is "Consistent with its prior analyses and testimony, as well as the views of Congress, multiple Administrations, appellate courts, and leading academic authorities" on the opinion that the exclusive rights established in Section 106 of title 17 of the United States Code (the so-called "bundle of rights") "collectively meet and adequately provide the substance of the making available right".

(ii) The exclusive right of distribution, as we have studied in the previous subsection, disciplines the phenomenon of downloads. The US Copyright Office goes on to say that section 106(3) covers "offers to access" as well, even "in the absence of evidence of complete transfers". The copyright office in taking this stance declares that it is aware of some Courts decisions going in an opposite direction, and states that "U.S. law should be read to include the offer of public access, including through on- demand services, without regard to whether a copy has been disseminated or received", thus providing guidance for future cases.

(iii) Finally, the Copyright office deals with Internet streaming and the display of images

[210] Official WIPO as quoted in Pallante, A. Maria, "The Making Available Right in the United States". *Report of the United States Copyright Office* (2016). Available at: https://www.copyright.gov/docs/making_available/making-available-right.pdf.

[211] All notions and quotations found in the following list are found in: Pallante, A. Maria, "The Making Available Right in the United States". *Report of the United States Copyright Office* (2016). Available at: https://www.copyright.gov/docs/making_available/making-available-right.pdf.

online by saying that "the United States provides the making available right through the rights of public performance and public display under Section 106(4)–(6), respectively"

One of the more controversial areas of application of the bundle of rights to the digital world is to consider a situation in which someone provides access to protected material as a violation of the right of distribution. In this respect, the approach of the copyright office is the "correct" one in that it's the only one that would respect the substance of art. 8 of the WIPO treaty. This reconstruction based on the opinion that the right of distribution as defined in section 106(3) includes the notion of "publication" as defined in Section 101 of the same Act: "-Publication- is the distribution of copies or phonorecords of a work to the public by sale or other transfer of ownership, or by rental, lease, or lending. The offering to distribute copies or phonorecords to a group of persons for purposes of further distribution, public performance, or public display, constitutes publication. A public performance or display of a work does not of itself constitute publication". In the previously cited London-Sire case, for instance, the Court argues that, when using the wording "offering to distribute" "the statute explicitly creates an additional category of publications that are not themselves distributions"[212], under this construction, the Copyright office concedes that "an offer to distribute copies to a group of persons for purposes of further distribution, public performance, or public display would constitute a publication but not a distribution within the meaning of Section 106(3)". The Copyright, however considers more founded the doctrine that critiques this interpretation and relies on the argument made by Professor Nimmer[213] on the subject, who objects that "Had Congress intended to reject the well-established view that the distribution right "would cover everything" encompassed by the prior rights to publish and vend—and, in so doing, to narrow the rights long afforded copyright owners under existing law—it seems highly unlikely that it would have done so through a -minor- definitional amendment and without comment"[214].

[212] London-Sire Records, Inc. v. Doe 1 – 542 F. Supp. 2d 153 - United States District Court, D. Mass. 2008.
[213] Professor Nimmer's opinion is so highly valued by the copyright office because the academic source most frequently relied on by courts construing the distribution right was the "Nimmer on Copyright" treatise. Nimmer's opinion before 2012 was that "infringement of [the distribution right] requires an actual dissemination of either copies or phonorecords", after reading an article by Professor Menell on the subject, however, he changed his opinion and co-authored a new article on the 2012 edition of "Nimmer on Copyright" that goes in the opposite direction with Professor Menell. For a more detailed report on this topic see online article: Hartline, Devline, "Nimmer Changes His Tune: Making Available is Distribution". Copyhype online article of 02/02/2012. Available at: http://www.copyhype.com/2012/10/nimmer-changes-his-tune-making-available-is-distribution/.
[214] Opinion of Professor Nimmer, after the 2012 change of mind, as reported in Pallante, A. Maria, "The Making Available Right in the United States". *Report of the United States Copyright Office* (2016): 33-34. Available at: https://www.copyright.gov/docs/making_available/making-available-right.pdf. Not quoted *verbatim*.

1. Exclusive Rights

The matter of streaming being protected under section 106, paragraphs (4) and (6) was controversial as well, but for different reasons. The "transmit clause" in Section 101 on the nature of a "public" performance includes transmissions of the work "by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times", though there is a lack of judicial decisions on this topic, the fact that Congress, in its report accompanying the 1976 Act stated that actual reception of a transmission is not required, it's enough that viewers are capable in theory of accessing the material. The issue in this case was whether individualized streams can be considered a public performance. In this case however, unlike the issue of distribution that, as we have seen in the previous paragraph is solved in different ways by different courts, a 2014 Supreme Court decision settled the problem in the Aereo case[215]. Aereo's activity was to sell its users a service that allowed them to watch television programs over the internet at about the same time as the programs were broadcasted over the air. The issue was that broadcasted programs were captured by antennas and stored in server partitions singularly for every user. The digitalized version of the broadcast a user wished to watch was then streamed to his screen through the Internet. Among the multiple issues raised in front of lower Courts, and in front of the Supreme Court, there was the problem we have outlined before. The Supreme Court's answer to this issue was that "the -performance- at issue is not the individual transmission, but the underlying performance of the copyrighted work itself".

The U.S. approach of transferring the bundle of rights to digital content, as we have explained above, has proven to be quite complex and to cause doctrinal and judicial uncertainties. The EU, as we know, has followed the opposite approach of giving effect to Art. 8 of the WCT by introducing a new right in its legal body with the InfoSoc Directive[216] and, as a consequence, in the legal systems of its Member States. In the following we shall see how it has been implemented and interpreted in EUCJ case law to decide whether the European approach is in fact a better way of granting the right of making available than the American.

The aforementioned Directive introduces a right of making available to the public in Art. 3, which we quote in full:

1. Member States shall provide authors with the exclusive right to authorise or prohibit any communication to the public of their works, by wire or wireless means, including the making available

[215] American Broadcasting Cos., Inc., et al. v. Aereo, Inc., Fka Bamboom Labs, Inc. 573 U.S. 431.
[216] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society.

to the public of their works in such a way that members of the public may access them from a place

and at a time individually chosen by them.

2. Member States shall provide for the exclusive right to authorise or prohibit the making available to

the public, by wire or wireless means, in such a way that members of the public may access them from

a place and at a time individually chosen by them:

(a) for performers, of fixations of their performances;

(b) for phonogram producers, of their phonograms;

(c) for the producers of the first fixations of films, of the original and copies of their films;

(d) for broadcasting organisations, of fixations of their broadcasts, whether these broadcasts are

transmitted by wire or over the air, including by cable or satellite.

3. The rights referred to in paragraphs 1 and 2 shall not be exhausted by any act of communication to

the public or making available to the public as set out in this Article.

On the surface, this article seems very clear and well-written: paragraph one is an almost *verbatim* reproduction of Art. 8 of the WIPO treaty, however we can identify at least one incoherence and one major problem arising from its wording and hindering a peaceful application of the provision. The incoherence is in the last paragraph of the article: it is unclear why it would be necessary to specify that the right of communication to the public is not subject to exhaustion, mainly because diffusive rights are not subject to it, and Recital 29 says that "every on-line service is in fact an act which should be subject to authorisation where the copyright or related right so provides".

The second issue is actually a major problem which had to be solved by the EUCJ in its rich body of case law on Article 3(1): neither the EC Directive nor other relevant regulation on copyright provides a definition of "communication to the public". The CJEU has had to determine the scope and meaning of this concept in its decisions. In order to simplify the understanding of the practical application of Art. 3(1) at EU level, we shall focus on the latest case on the matter, the so-called pirate bay case of 2015 (adjudicated in 2017), in which the Court sums up the criteria used in its previous case-law on determining the scope of the notion of "communication to the public".

1. Exclusive Rights

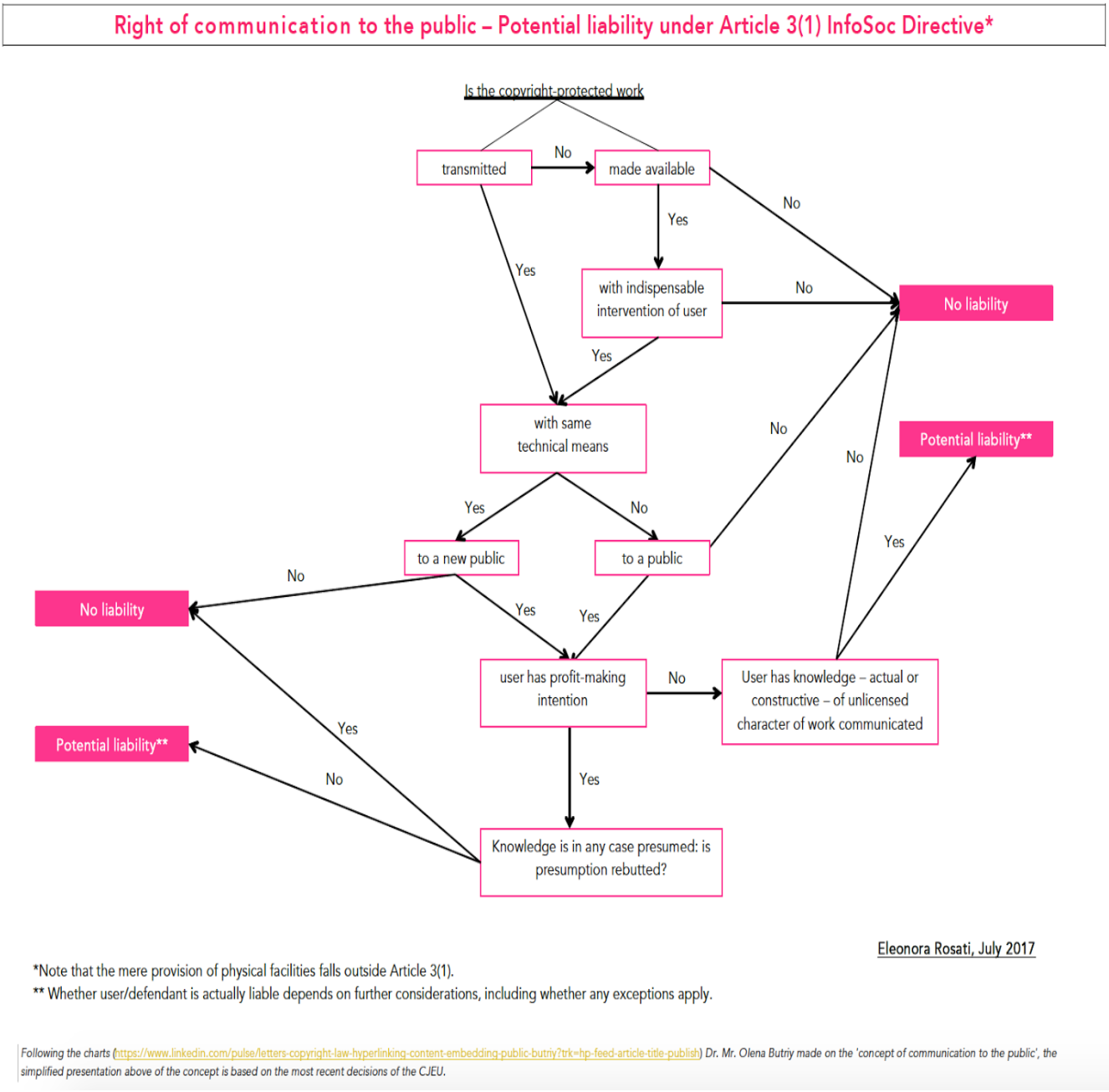
In "The Pirate Bay" case[217], the principal question referred to the Court was whether "the making available and management, on the internet, of a sharing platform which, by means of indexation of metadata relating to protected works and the provision of a search engine, allows users of that platform to locate those works and to share them in the context of a peer-to-peer network"[218] should be considered a communication to the public within the meaning of Art. 3(1). The first criterion recalled by the Court is that a user "[…] makes an act of communication when he intervenes, in full knowledge of the consequences of his action, to give his customers access to a protected work, particularly where, in the absence of that intervention, those customers would not be able to enjoy the broadcast work, or would be able to do so only with difficulty". The type of role of a user's intervention in making a protected work available to the public must be taken into account because according to Recital 27 of the InfoSoc Directive "The mere provision of physical facilities for enabling or making a communication does not in itself amount to communication within the meaning of this Directive". Secondly, The Court defines the concept of "public" in light of its case-law, stating that "-public- refers to an indeterminate number of potential viewers and implies, moreover, a fairly large number of people", with the further specification that "it is sufficient, in particular, that a work is made available to a public in such a way that the persons comprising that public may access it, from wherever and whenever they individually choose, irrespective of whether they avail themselves of that opportunity". Then it adds two more requisites: in evaluating the possible infringement of protected rights by an unauthorized act of communication to the public, the profit-making nature of the act is "not irrelevant" and secondly " a protected work must be communicated using specific technical means, different from those previously used or, failing that, to a 'new public', that is to say, to a public that was not already taken into account by the copyright holders when they authorised the initial communication".

In order to better visualize the intersection of Art. 3(1) provisions and EUCJ case-law, which together reveal the scope of application of the right of making available in the European Union, we shall rely on the following graph (**Image 2[219]**)

[217] Stichting Brein v Ziggo BV and XS4All Internet BV (C-610/15). Judgment of the Court (Second Chamber) of 14 June 2017.

[218] First consideration of the Court, at point 18 of the judgement in the case Stichting Brein v Ziggo BV and XS4All Internet BV (C-610/15). Judgment of the Court (Second Chamber) of 14 June 2017.

[219] Image 2: Table "Right of communication to the public – Potential liability under Article 3(1) InfoSoc Directive". Created by Eleonora Rosati. Available at: http://ipkitten.blogspot.com/2017/07/the-right-of-communication-to-public-in.html. Use of this chart is governed by the Creative-Commons attribution non-commercial licence.



Following the charts (https://www.linkedin.com/pulse/letters-copyright-law-hyperlinking-content-embedding-public-butriy?trk=hp-feed-article-title-publish) Dr. Mr. Olena Butriy made on the 'concept of communication to the public', the simplified presentation above of the concept is based on the most recent decisions of the CJEU.

Having concluded this analysis of the American and European approach to the right of making available, it can be observed that in both systems the courts played a vital role in defining its parameters and scope. Even though the Americans argue that a right of making available to the public in the digital world already exists in their legal system thanks to the combination of existing exclusive rights, and the European Union on the other hand has introduced a specific provision, this right is still very much in the early stages of its evolution. Perhaps it might even be a testament to the success of its neutral qualification in the WIPO conferences, meaning that it has opened the copyright system and made it able to naturally evolve along with the new challenges that might be posed by present and future technological evolutions.

2. Duration of Protection

At the beginning of this chapter we have said that the rights that the law gives to the authors are excusive, but they are not absolute, since the law protects both the interest of the authors and the public interest. In the former section, we have examined the exclusive rights, what prerogatives do they vest upon the authors and how have they developed after the digital revolution. Now on the contrary, we will tackle the limits placed by the law to copyright protection.

In the present section we shall deal with the most fundamental limitations of copyright: time and the public domain. Works in the public domain may never be subject to copyright again, and the law provides that, after a certain amount of time, all works are destined to fall in the public domain. In the following section we will focus on the Limitations and Exceptions to which works are subject while they are still under copyright protection.

In the first centuries after the invention of the printing press, the State regulated the new phenomenon by granting monopoly to the printers on the works they registered through the mechanism of printing privileges. One of the downsides of this system, as we had the chance to study in more detail in chapter 1, was that some printers tended to claim printing privileges on as many works as possible, even if they had no intention of printing them, in order to block the market and prevent other printers from entering the business and competing with them. Another problem was that any literary work, even those written in ancient Greece or Rome, could be subjected to printing privileges.

Ever since the introduction of the first copyright act in 1709 however, a common feature of the new regimes of statutory protection, both in States that adopted the Anglo-Saxon copyright doctrine and in those that followed the author's rights philosophy, was the short term after which the exclusive rights expired. Under the Statute of Anne, protection lasted for fourteen years after the publication, with the option to renew the term for another fourteen years. To this day, copyright is subjected to a final term, after which protected works fall into public domain; its duration however has consistently been increased through the centuries.

The Berne Convention requires the minimum term of protection to be "the life of the author and fifty years after his death".[220] Both the united States and Europe have adopted a greater term of seventy years after the death of the author, generating in the laws extending the term problems of

[220] Art. 8(1) of the Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (in the version resulting from the Paris Act of July 24, 1971, as amended on September 28, 1979).

harmonization with works previously protected, each legal system in its peculiar way.

The United States Congress introduced three reforms of the duration of copyright protection in the last century or so, each reform establishing rules to regulate works protected under the previous regime. This has resulted in an incredibly stratified and unnecessarily complex system. the 1909 employed a dual term of protection, clearly modelled after the Statute of Anne, of 28 years from the date of first publication, with the possibility of renewal for an additional 28 years. The Act of 1976 changed the term to 50 years after the death of the author, and Sonny Bono Copyright Extension act of 1998 extended it to the life of the author plus twenty years. The system resulting from the stratification of these legal acts is so complex that we refer to the table in **Image 3**[221]**.** (see *infra* the following page).

[221] Excerpt of the table "Copyright Term and the Public Domain in the United States". Created by Peter Hirtle. Available at: https://copyright.cornell.edu/publicdomain. Use of this chart is governed by the Creative Commons Attribution 3.0 License, which is available at: https://creativecommons.org/licenses/by/3.0/legalcode. That chart includes further details.

2. Duration of Protection

Date of Publication	*Conditions*	*Copyright Term*
Before 1925	None	None. In the public domain due to copyright expiration
1925 through 1977	Published without a copyright notice	None. In the public domain due to failure to comply with required formalities
1978 to 1 March 1989	Published without notice, and without subsequent registration within 5 years	None. In the public domain due to failure to comply with required formalities
1978 to 1 March 1989	Published without notice, but with subsequent registration within 5 years	70 years after the death of author. If a work of corporate authorship, 95 years from publication or 120 years from creation, whichever expires first
1925 through 1963	Published with notice but copyright was not renewed	None. In the public domain due to copyright expiration
1925 through 1963	Published with notice and the copyright was renewed	95 years after publication date
1964 through 1977	Published with notice	95 years after publication date
1978 to 1 March 1989	Created after 1977 and published with notice	70 years after the death of author. If a work of corporate authorship, 95 years from publication or 120 years from creation, whichever expires first
1978 to 1 March 1989	Created before 1978 and first published with notice in the specified period	The greater of the term specified in the previous entry or 31 December 2047
From 1 March 1989 through 2002	Created after 1977	70 years after the death of author. If a work of corporate authorship, 95 years from publication or 120 years from creation, whichever expires first
From 1 March 1989 through 2002	Created before 1978 and first published in this period	The greater of the term specified in the previous entry or 31 December 2047
After 2002	None	70 years after the death of author. If a work of corporate authorship, 95 years from publication or 120 years from creation, whichever expires first
Anytime	Works prepared by an officer or employee of the United States Government as part of that person's official duties.	None. In the public domain in the United States (17 U.S.C. § 105)

The table doesn't even take into account the specific term provisions for works first published outside of the United States, sound recordings and architectural works. The problem of all these subsequent extensions of the term can be the exploitation of legal loopholes hidden in all these provisions by certain corporations, with the result of a pseudo-eternal protection of some creative works, that are subtracted to the public domain[222].

The European Union managed to create a situation in which loopholes to the same effect of those that are possible within the US legal system, are allowed to persist in its Member States. Directive 93/98/EEC, now codified in Directive 2006/116/EC was issued by the European Council "In order to establish a high level of protection which at the same time meets the requirements of the internal market and the need to establish a legal environment conducive to the harmonious development of literary and artistic creation in the Community [..]", as it is so eloquently explained in recital 12. The same recital goes on to declare the content of the reform as well " […] the term of protection for copyright should be harmonised at 70 years after the death of the author or 70 years after the work is lawfully made available to the public, and for related rights at 50 years after the event which sets the term running". The directive even solves with elegance, contrary to what we have witnessed happen in the U.S., the issue of pre-existing works which are protected under different conditions in Article 10(2) "The terms of protection provided for in this Directive shall apply to all works and subject matter which were protected in at least one Member State on the date referred to in paragraph 1". Paragraph 1 however, doesn't only provide a date for the retro-active application of the new term, it also provides for an exception to the new term " Where a term of protection which is longer than the corresponding term provided for by this Directive was already running in a Member State on 1 July 1995, this Directive shall not have the effect of shortening that term of protection in that Member State". This exception is the legal basis for loopholes remaining in national legislations, that subtract protected works to the public domain for an even longer time than the one already granted under this directive, and ultimately hinder the purpose of harmonizing national legislations.

2.1 Copyright Ends in the Public Domain

We have seen which works are protected by copyright law, and for how long, now it is time to study what happens after the protection granted by law expires and works fall in the public domain. First a

[222] This issue will be tackled in more depth in the next subsection when we will examine the mickey mouse case.

definition: a work that is in the public domain is not owned by anyone[223]. Therefore, it can be used in every way one might please to use it without having to ask permission to anyone and without having to pay; to put it in a more comprehensible way, no one owns it, so everybody sort of "owns" it in a non-exclusive way. In light of what has emerged in the previous chapter we can confidently say that, if copyright (/droit d'auteur) provides the economic incentive to create, the public domain protects the interest of the public and of the State to the diffusion of culture. It can be argued however that the role of the public domain is even more crucial. In her research on the essence and function of the public domain, Jane Litman analysis of the creative process argues that: "An author transforms her memories, experiences, inspirations, and influences into a new work. That work inevitably echoes expressive elements of prior works"[224]. According to this reconstruction the public domain is a reserve of free creativity that benefits not only the pubic, but also the authors, providing fertile ground where new ideas can blossom.

Having established the nature and functions of the public domain we can say that the main way in which works enter it is expiration of copyright. Since intellectual property protection expires after a certain term, it seems like it should be quite easy to determine whether a work is still protected or it has entered the public domain, but layers of reforms and legislative exceptions can make such determination quite tricky. In the previous section we have had a chance to see that the United States have developed a very sophisticated discipline in order to harmonize the succession of laws extending the copyright term. The EU even tackled the issue with a directive to harmonize the term across its Member States' legislations; and both have determined the same term of seventy years after the death of the author as a general rule. In spite of these efforts, there are still cases in which works may be still under protection in some States and already in the public domain in others, in the EU, and cases in which rightsholders take advantage of the legal complexities to overstretch the term of copyright protection, in the US.

One example of this lack of uniformity in the duration of protection of copyrighted works, and the problems it can cause, is that of the "Little Prince". Antoine de Saint-Exupéry was killed in 1944 when his plane was shot down by the Luftwaffe during a reconnaissance mission. In 2015, seventy years had passed from his death and "The Little Prince" entered the public domain almost everywhere in the world. In the European Union however, where the term of copyright protection had already been harmonized since 1993[225], and one wouldn't expect any surprises on this issue, we find

[223] Moser, J David & Cheryl L. Slay. *Music Copyright Law.* (p. 42). Boston, Massachusetts: Course Technology PTR, 2012.
[224] Litman, Jessica D. "The Public Domain". 39(4) *Emory L. J.* (1990): 1008.
[225] Directive 93/98/EEC of the Council of 29 October 1993 Harmonizing the Term of Protection of Copyright and certain Related Rights.

an exception. In France the *Lois de 1er Mars 1922* establishes various privileges for those who are declared *"morts pour la Patrie"* in the first world war and in future conflicts, among which there is an extension of the term of copyright protection for authors who died fighting for France. Art. 10 of EU Directive 2006/116 harmonizing the term protection of copyright (that amends and substitutes Directive 93/98/EEC) states that "Where a term of protection which is longer than the corresponding term provided for by this Directive was already running in a Member State on 1 July 1995, this Directive shall not have the effect of shortening that term of protection in that Member State." As a result, "The Little Prince" has entered the public domain all over the world and in all EU Member States in 2015 but will be protected in France until 2033.[226]

The price to pay if we want to analyse the problems with the U.S. various reforms and their artificial inflation of certain copyrights is quite high, for it concerns Mickey Mouse. The notorious rodent is not only a beloved character who warmed the hearts of generations of children, he is also at the centre of major economic interests, and at the crossroads of two opposite tendencies of copyright, as we will have a chance to se in this section and in the next one. Mickey Mouse was created in 1926 and was first "published" in 1928: under the 1909 copyright act it could be protected for a maximum of 56 years and would fall into public domain in 1984. This calculation doesn't take into account the year 1976, when the copyright reform extended the protection to 95 years from the date of publication[227]. In 1998 another reform, the Sonny Bono Copyright Extension Act, once more "saved" Mickey Mouse from the public domain, extending copyright protection for another 20 years. Disney was allegedly[228] involved in lobbying activities in at least the last extension reform, so much so that it came to be known as the Mickey Mouse Act. Disney's efforts, however, didn't only result in exceedingly profitable legislative reforms, they also inspired a young Harvard law professor to challenge the reform (without success) and the traditional notion of public domain. He would be among the pioneers of a new concept of public domain that blossomed thanks to the digital revolution and to which the next section is dedicated.

2.2 Public Domain in a Digital Environment: Copyleft

[226] Strycharz, Katarzyna, Public Domain: Why it's not so Simple in Europe. Internet Article available at: https://medium.com/copyright-untangled/public-domain-why-it-is-not-that-simple-in-europe-1a049ce81499

[227] Subject to the conditions so egregiously listed in image 3 *supra*.

[228] Menell, S. Peter & Mark A. Lemley & Robert P. Merges. *Intellectual Property in the New Technological Age: 2019 vol. II.* (p. 618). Torrazza Piemonte, Torino: Clause 8 Publishing & Amazon Italia Logistica srl, 2019.

2. Duration of Protection

We have seen that according to traditional legislation, copyrighted works essentially enter the public domain by expiration of the term. Towards the end of the twentieth century however, a combination of factors created the perfect conditions for the birth of a different approach to intellectual property. In 1998 the United States Congress passed the Sonny Bono Copyright Extension Act[229], the main novelty of which was to extend copyright protection from 56 to 70 years from the date of publication. This legislation was part of the process of harmonization of intellectual property protection with the standards of the international community that the US had begun in the 80's, but it was also the result of heavy lobbying by Disney[230] and other content corporations[231]. At the same time, the costs of reproduction were dropping to virtually zero thanks to digitalization, and distribution was made instant and free from geographical boundaries by the diffusion of the Internet. The combination of these two factors, an increase in copyright protection just as the digital revolution made content easier to access, with the traditional Anglo-American understanding of copyright as a means to the end of fostering creativity in the interest of the public, gave new strength to the free culture movement[232]. Digital content typically contains works protected under copyright and is supplied subject to end user licensing agreements, under which a copyright holder exercises their exclusive rights to disseminate protected work[233]. This allowed information society pioneers to find new ways to create and share content that would fall immediately in the public domain. Instead of completely rejecting the copyright system as a whole, they managed to work within the existing rules and write special licensing models that create a sort of parallel legal system often referred to as "copyleft".

The term "copyleft" refers to a general method for making a program (or other work) free and requiring all modified and extended versions of the program to be free as well[234]. The most straightforward way to obtain this result is to just put it in the public domain uncopyrighted. This however would allow ill-intentioned people to make small or big changes to the code and convert the resulting program in proprietary software. Copyleft is a sort of reverse copyright that prevents users

[229] Public Law 105-298, Oct. 27, 1998. "An Act to amend the provisions of title 17, United States Code, with respect to the duration of copyright, and for other purposes".

[230] We single out the lobbying efforts of Disney because it had a specific interest in the extension of the term of protection granted by this act as it allowed them to keep Mickey Mouse out of the public domain for an additional twenty years. For more on the copyright adventures of Mickey Mouse cf. *retro*, section 2.1.

[231] Lessig, Lawrence. *Free Culture: The nature and Future of Creativity*. (p. 368). New York: Penguin, 2004.

[232] The core idea was codified in 1968 by Stewart Brand in "The Whole Earth Catalog", and it was based on the assumption that technology could be a liberating force in the journey of human progress.

[233] Oprysk, L. & Karin Sein, "Limitations in End-User Licensing Agreements: Is There a Lack of Conformity Under the New Digital Content Directive?". IIC – International Review of Intellectual Property and Competition Law (2020): 1. Available at: https://doi.org/10.1007/s40319-020-00941-y.

[234] FSF Copyleft definition.

from taking free software away from the public domain.

This general introduction raises the question as to when these new ways in which protected material can enter the public domain before expiration of the term developed and how they have been implemented. Their origins can be traced back to computer programmer and founder of the free software movement, Richard Stallman. He started his career in 1971 as a programmer at the MIT; his work group used open software and back then even computer manufacturers used to distribute free software. By the '80s however almost all computer software was proprietary, which means that its owners could forbid access to the source code and prevent cooperation among programmers, therefore in 1983 he started the GNU Project with the goal to develop a complete free operating system. To achieve his goal, he invented and wrote the GNU General Public License, a new legal construct based on traditional copyright notice that laid the foundations for future open content licenses. The essential characteristics of this license are outlined in its preamble:

"When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things. To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others. For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights."[235]

As we can see from this declaration of intent, this license allowed users of the GNU Project operative system the maximum amount of freedoms possible, allowing users to interact with the source code, programmers to freely cooperate and "free riders" to take advantage of this project as a gift to society. The licence even allows commercial exploitation of works, the only limitation to the rights granted by the licence is that recipients of software licensed in this way must pass on the same liberties they received.

The impact of the GNU Project was profound and far-reaching. Richard Stallman achieved

[235] GNU General Public License. Version 3, 29 June 2007. Available at: https://www.gnu.org/licenses/gpl-3.0.html.

his goal and created with Linus Torvalds GNU/Lynux[236], the first free operating system, that has now evolved in many different versions or "distros" developed by various communities of programmers or businesses to suit their needs, as it is fully modifiable. For example, Lynux derived versions are the most used OS on web servers and the only ones used on supercomputers[237], but it is also available for phones and desktop computers. From a legal perspective the significance of the GNU General Public License has been just as notable. In 1985, Richard Stallman established the Free Software Foundation thus formally starting the free software movement for the liberation of all computer users from proprietary software. Today when we talk about cooperative software development, we usually call it "Open Source", well, the Open Source Initiative was founded in 1998 as a result of a schism inside the free software movement. The differences between the two movements and the licenses under which they operate are subtle on the surface but ultimately amount to very different practical results. The free Software Movement is based on four freedoms: 1) the freedom to run the program as you wish. 2) The freedom to study how the program works and change it so it does your computing as you wish. 3) The freedom to redistribute copies so you can help others. 4) The freedom to distribute copies of your modified versions to others. It is a social movement that sees dissemination of free software as a moral imperative in the fight against the evil proprietary software. The Open Source Initiative, on the other hand, sees open software as the most efficient way to program in so far as there is no need for duplication of developing efforts and the maximum possible number of programmers contributes to software development, thus making the process faster and producing a higher quality output. Therefore, they don't adverse the idea of cooperating with corporations, but try to persuade them to adopt Open Source licenses with pragmatic and utilitarian arguments. As a consequence of this different approach there have been a few instances in which companies have either applied limitations to open source licenses or taken advantage of loopholes in the licenses that have later been fixed[238]. Despite all that, most of the licenses offered on the Open Source Initiative website are also considered free by the FSF and allow computer software to become a public good and *de facto* enter the public domain.

Sooner or later, the method devised by Richard Stallman of bending copyright licenses to bring

[236] Lynux is the name of the kernel of the OS. Technopedia's definition of the kernel is: "A kernel is the core component of an operating system […] (it) interfaces between the three major computer hardware components, providing services between the application/user interface and the CPU, memory and other hardware devices". Available at: https://www.techopedia.com/definition/3277/kernel.

[237]

[238] Open Watcom's licence is approved by the Open Source Initiative, but it is considered "non-free" by the Free Software Foundation because it does not allow making a modified version and use it privately. Another example is the famous smartphone operative system Android. It is considered Open Source, and part of it runs on OSI's Apache License, but the kernel runs on a version of lynux licensed under GPLv2 (the latest version of the GPL is GPLv3) that has been updated because that version made it possible for corporate developers (in this case Google) to block the possibility for users to install non-proprietary executables on the otherwise open source software, thus making it non-free.

software effectively in the public domain, was bound to be adopted for digitalized non-copyright content as well. This was done by Lawrence Lessig, a law professor at Harvard[239], who in 1999 challenged the Sonny Bono Act, taking the case to the Supreme Court on the grounds that the Constitution gave power to the Congress to protect author's rights only for a "limited" time. He lost but didn't give up on his vision of a "globally accessible public commons of knowledge and culture" and hi aim to "build a more equitable, accessible and innovative world", so in 2001 he founded the Creative Commons association. This association has released several licenses that can be applied to any work and substitute the "all rights reserved" default copyright system with "some rights" reserved. Not all the licenses they offer make the works to which they are applied "free", but they surely grant many more options to users and creators. When talking about open source licences for software, the mater tends to become too technical from a technological standpoint, now however we have returned to the world of traditional culture, though digitalized, therefore we shall list and explore the six types of creative commons licenses available on their website[240] in order to have a better understanding of how these legal instruments operate:

- 

(CC BY): This license allows reusers to distribute, remix, adapt and build upon the material in any medium or format so long as attribution is given to the creator. It allows commercial use too.
- 

(CC BY-SA): This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator. The license allows for commercial use. If you remix, adapt, or build upon the material, you must license the modified material under identical terms.
- 

(CC BY-NC): This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator.
- 

(CC BY-NC-SA): This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt, or build upon the material, you must license the modified material under

[239] Harvard Law School website: https://hls.harvard.edu/faculty/directory/10519/Lessig

[240] All images and description of licenses are created by the Creative Common Foundation and can be found at: https://creativecommons.org/about/cclicenses/

identical terms.

-  **(CC BY-ND):** This license allows reusers to copy and distribute the material in any medium or format in unadapted form only, and only so long as attribution is given to the creator. The license allows for commercial use.
-  **(CC-BY-NC-ND):** This license allows reusers to copy and distribute the material in any medium or format in unadapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator.

As we can make out by looking at the licenses, they are a combination of four acronyms, each representing a characteristic of the license. BY means credit must be given to the author, SA means that adaptations of the work must be shared under the same terms, NC means that only non-commercial uses of the work are permitted, and ND means that no derivatives or adaptations of the work are permitted. Among them only CC-BY and CC-SA are considered "open" according to the Open Knowledge foundation definition, however all of them contribute to create an environment where knowledge is more accessible and promote a "some rights reserved" legal status of creative works.

We left out of this list the CC0 license, that simply allows creators to waive copyright entirely and put their works in the public domain, for the reasons we saw at the beginning of the chapter: placing content in the public domain with no limits whatsoever leaves the door to appropriation by non-cooperative users[241].

We shall conclude the treatment of this subject with a cautionary tale: although these new developments and instruments are so effective at bringing together creators and open the access to culture, they can cause unexpected problems and intersect with other sectors of the law. An example of such dangers is the Chang v Virgin Mobile case of 2009. The facts of the case are that the photos of a minor were posted online to Flickr by her church counsellor (both subjects were Texans) under a Creative Commons Attribution 2.0 License agreement (CC-BY in our previous list), which allows "the most unrestricted use available to any worldwide user (including commercial use and no monetary payment"[242]. In the same year an Australian company, Virgin Australia, launched an ad campaign in certain Australian cities that featured "a collection of over 100 photographs downloaded at no cost to Virgin Australia from Yahoo!'s ("Yahoo's") public photo-sharing website, Flickr".

[241] There are exceptions to this general rule as we will see *infra* at letter "b" of the current subsection.
[242] Chang v. Virgin Mobile USA, LLC, Civil Action No. 3:07-CV-1767-D (N.D. Tex. Jan. 16, 2009).

Amongst these photos was chosen that of the Texan minor, which was used by Virgin in combination with suggesting and inappropriate phrases[243]. Virgin Australia was sued by people representing the minor on claims for "invasion of privacy, libel, breach of contract, and copyright infringement"[244]. The case was never adjudicated based on lack of jurisdiction, and the plaintiffs didn't pursue the action in other courts. The issue raised by such events are quite disturbing, and call for measures of harmonization between privacy, protection of minors and copyright.

3. Limitations and Exceptions

The topic of limitations and exceptions to exclusive rights in the information society is home to a heated debate regarding their role and extension in the future of the Internet. Some have argued for a reduction of these measures in light of the fact that a more cost-effective method of reproducing and distributing intellectual works made possible by the new medias would open the opportunity to access works at more advantageous conditions for all. Others, on the contrary, have envisioned the dangers that such an approach could bring: a pay-per-view society, and have therefore pushed for a more rigorous protection of the public interests intertwined with copyright, such as the right to research, to study, to be informed and to criticize[245].

All these debates present reasonable options, if we want to solve the dilemma however, instead of anxiously guessing the future, we better turn our attention to the past, to the ratio behind past decisions on this subject. Limitations and Exceptions were put in place in a time and in certain conditions, with the aim of finding a balance between the exclusive rights of authors and the interest of the public. In fact, these rights are not absolute, and are well confined within temporal limits. Not only that, but even during the time in which exclusive rights are operative, a series of limits makes more acceptable and less invasive the author's prerogatives.

"Limitations and exceptions" is not an hendiadys, each word has its own meaning. When an exception applies, the exclusive right of the author, is to be held non-existent. Whereas in the case of limitations the author, the right is not cancelled, but degraded to a right to a fair remuneration. This is the case of compulsory licenses. There are two fundamental categories of limitations and exceptions

[243] "'FREE VIRGIN TO VIRGIN TEXTING" is an example of such sentences reported by the Court.
[244] Id. 88.
[245] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica" (p. 251). Milano: Giuffrè, 2005.

the first is made up by specific norms that deal with specific issues, typical of continental systems. The other category contains general exceptions, used to open the system to the real world, seeing that it's impossible to analytically predict all human conducts, typical of common law systems. There is however a contamination between those two approaches. Although fair use remains the principal source of exceptions in the United States (it is laid out in section 107 of the copyright act, the first section after the two sections (106 and 106a) on exclusive rights, the American copyright code is host to a great number of specific exceptions. The EU and civil law legal systems on their part have adopted the three-step-test developed in art. 9(2) of the Berne Convention.

3.1 Fair Use and the Three Step Test

The main difference between the Fair Use Doctrine and the Three-step-test is that the first is a source of exceptions, a general set of criteria that can be used to ascertain whether an unauthorized use of a protected work for which there isn't a specific exception can be considered to infringe the rights of the rightsholder, or it can be considered a fair use: it can be used in court as legal foundation of a decision on its own. The three-step-test on the other hand, was established by the Berne Convention as a control of the type of exceptions that could be introduced by Member States to the right of reproduction. Article 10 of the WCT has extended it to all the rights granted by the Berne Convention. It's a guideline that must be respected by the States when introducing new L&Es. Now that we have outlined the differences between these two general provisions regulating limitations and exceptions, we shall examine them in detail.

The three-step-test provides that "It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author"[246].

The first step requires that an exception can be introduced only in "certain special cases". This sentence implies two conditions: one is that the scope of the exception should be sufficiently known and characterized so as to guarantee a satisfactory degree of legal certainty, the other is that it must

[246] Art. 9(2) of the Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886 (in the version resulting from the Paris Act of July 24, 1971, as amended on September 28, 1979).

pursue a relevant social interest[247]. The second step refers to the "normal exploitation of the work", this guideline has been interpreted to exclude from the possibility of creating limitations in those markets or to those actions whereby a work is typically exploited economically. The third step requires exceptions and limitations to not "unreasonably prejudice the legitimate interest of the author", thus implying that a certain degree of prejudice to the interests of the author is allowed, provided that it is within the limits of reason and it respects steps one and two.

A real-world example of a provision that respects the three-step-test would be Art. 68 of the Italian Copyright law. It regulates the reproduction for personal use of written text. As long as the reproduction is made by hand, it is totally free. As soon as the article goes on to regulate reproduction for personal use, assisted by a machine, it places quantitative limits on how many pages may be reproduced (fifteen percent) without express authorization of the author, and to make this exception even less prejudicial to the legitimate interests of the author, paragraphs 4 and 5 establish a right of retribution.

The fair use doctrine operates following a mechanism somewhat similar to, and certainly compatible with, the three-step-test. Section 107 so states:

"Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole;

(4) the effect of the use upon the potential market for or value of the copyrighted work. The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors."

[247] Marzano, Paolo. *Diritto d'Autore e Digital Technologies: Il Digital Copyright nei Trattati OMPI, nel DMCA e nella normativa comunitaria.* "Dritto Delle Nuove Tecnologie – Internet Informatica Telematica" (p. 259). Milano: Giuffrè, 2005.

The most interesting aspect of this provision is that it is structured so that it can offer homogeneous answers to a broad set of situations. First it lists a series of activities that are considered to fall under fair use as standard, which gives the interpreter a solid base, a glimpse into the notion of fair use. Then in the second part it provides an open list of four factors "to be considered", thus clarifying the extreme flexibility of these criteria. The first criterion to be considered, for instance, is whether a use is of commercial nature or non-profit/educational. News reporting and parody, both usually characterized by commercial purposes, are usually considered fair use by the American Courts. An important criterion, developed in the Acuff-Rose case[248], to decide how much weight to give to the lucrative purpose of the use is the distinction between transformative and non-transformative uses; the Courts being more inclined to grant it in the former case.

The second criterion "the nature of the copyrighted work" sees the Courts focusing on whether the work used without authorization was based mainly on creative material or on data and information, being more inclined to recognize fair use in the latter situation. Criterion 3 is more or less self-explanatory: the more restraint is shown in the unauthorized use, and the more public is the source material, the more the courts are likely to find fair use. The fourth criterion means that a use that cannot usurp the potential demand for the original is more likely to be considered fair.

[248] Campbell v Acuff-Rose Music, Inc. 510 U.S. 569 (1994).

Chapter 4 – From Physical to Digital: New Copyright Challenges

1. Mass Digitization

The first phenomenon with which we shall deal, is that of mass digitization. The definition of mass digitization used as a general term is "The practice of quickly and thoroughly digitizing items on a large scale"[249], which, rather than being an issue caused by the digital revolution, seems to be more a description of such revolution. In copyright law jargon however that expression usually refers to the activity of digitizing and making accessible through the internet works (written and audio-visual) and phonograms in the interest of the whole of society.

To be fair, the first entity to pioneer this sector was google in 2004, when it launched its "google books project" with the aim to digitize all books that ere ever printed. In 2010 Leonid Tayacher, a google software engineer, estimated their number to be almost 130 million[250], and in October 2019 in a post celebrating the first fifteen year of the project, google claimed to have scanned 40 million books. The example of Google books has been followed by many other projects that adapted the same philosophy of creating massive digital archives, to not for profit platforms. Prime examples are the Hathi Project, the digital Public Library of America and the Internet Archive. Out of these three, only the first one is a digital library which limits its activity to digitization of written works, the other two resemble more what is referred to in the EU as Cultural Heritage institutions, since they store digitized copies of pictures, moving images, and sound recordings.

In the European Union, contrary to what happened in the U.S., the effort of digitization was sparked by institutional pressures, rather than by the private sector (be it for profit or not for profit). In 2005, one year after the announcement of the google books project and probably as a reaction to it, leaders from various European Countries wrote a letter to the European Commission to urge the creation of a European digital library in order to make "Europe's cultural heritage more accessible to everyone". This letter resulted in the foundation of Europeana, which is an official platform of the

[249] Weiss, Andrew Philip. "Massive Digital Libraries (MDLs) and the Impact of Mass-Digitized Book Collections." In *Encyclopedia of Information Science and Technology, Fifth Edition.* edited by Mehdi Khosrow-Pour D.B.A., 1782-1795. Hershey, PA: IGI Global, 2021. http://doi:10.4018/978-1-7998-3479-3.ch123.

[250] Tayacher, Leonid, "Books of the world, stand up and be counted!" *Google Blogs* (August 2010). Available at: http://booksearch.blogspot.com/2010/08/books-of-world-stand-up-and-be-counted.html.

European union that aggregates millions of cultural and scientific artefacts from the digital collections of thousands of partners (museums, libraries, foundations).

It appears clearly from this short introduction that these projects are of great value to society and fit precisely the definition of public interest. The role of copyright law however, both in common law and civil law legal systems, regardless of the rhetoric behind the respective ideologies, is to strike a balance between the interest of society as a collective body, and of the authors as valued contributors to the advancement of culture and science, who are entitled to reap the economic benefits of their works. One of the problems with organizing a mass digitization operation is the impossibility to clear copyright due to the sheer number of works and authors involved. Since this problem hasn't been tackled neither by the U.S. nor by the EU in an organic way through a dedicated bill, only case law can help us frame the issue in legal terms.

The first dispute[251] on the matter was brought by the Author's Guild (and some publishers) against Google in 2005, not even a year after the launch of its digitization project. The plaintiffs argued that the defendant, by scanning books without previously asking permission and obtaining a license from the respective authors, was guilty of copyright infringement. The process of scanning a book, digitizing it and making it available online implies the making and storing of a digital copy; the author or other rightsholder is the only subject who can authorize the reproduction of his work, hence this case would seem to have a straightforward solution. But reality is always more complex up close than how it looks from far away, and a more accurate analysis of the google books digitization model shall prove it. Google books acquires texts to its collection in two ways[252]: one is the partner program, where a license agreement would be signed with the publisher or the author of the work, and the other is the library project. While the first method doesn't cause any particular issue, as the work is used after obtaining a license, in compliance with the will of the rightsholder as documented and fixed in the license agreement, the library project was the one at the centre of the lawsuit. The bulk of Google's digitized works didn't come from individual agreements with authors or publishers, but from partnerships with libraries that shared their collections, of which were part works in the public domain, orphan works and protected works. Although Google digitized all works in their entirety, thus creating and storing full-text copies of all the books regardless of their status, it used four levels of access to present them to users.

- Full view of the document for books in the public domain,

[251] Authors Guild v. Google, Inc. - 804 F.3d 202 (2d Cir. 2015).

[252] For reference see: https://www.google.com/googlebooks/about/.

- A preview of the document is generally available for works acquired through the partners program. Rightsholders are able to set the percentage of the book available. Users can't copy, print or download book previews.
- A snippet view according to Google's own definition: "like a card catalogue, shows information about the book plus a few sentences of your search term in context".
- No preview of books that have not yet been digitized. Search results include metadata such as title, author and ISBN.

The Author's guild (and the publishers) held that the acts of scanning, copying and displaying snippets constituted copyright infringement.

Google's reaction was to seek an agreement with the plaintiffs to cover future uses and settle the present claims by paying publishers and rightsholders. The terms of the agreement reached in 2009 pending Court approval were the following: authors had a limited time to opt out of the google books project, Google could scan, digitize and exploit all the works whose owner hadn't opted out. Exploitation included the ability to sell e-book copies, to offer previews of 20 percent of the book, allow use of the books to subscription databases in exchange for a periodic fee and use advertisements in connection with these services. In exchange for that privilege, a Book Rights Registry would be set up at Google's expense that would collect the rightsholder's share of the revenue resulting from these activities and distribute it. In the case of orphan works, if no one came forward to claim the funds after a certain period, they could be used to cover the expenses of searching for the copyright owners or donated to literacy-based charities[253].

The Court rejected the proposed agreement on the grounds that the proposed system resembled that of Extended Collective Licenses, which is usually set up by Congress in certain specific fields, with the key difference, in the present case, that it would operate to the sole advantage of Google, as a sort of "Court sanctioned competitive advantage"[254]. Also, judge Jenny Chin argued that the question of orphan works and the terms under which they should be safeguarded is competence of Congress, citing the principle established by the Supreme Court in 1984 that it is "Congress's responsibility to adapt the copyright laws in response to change in technology".

Following the Court's rejection of the proposed agreement, Google separately settled with the publishers and continued its battle against the Author's Guild in Court, pursuing a fair use defence. In 2013, the Court decided the case in favour of Google books. The judge recognized the significant

[253] See the Am. Settlement Agreement §§ 1.13, 1.75, Authors Guild, Inc. v. Google Inc., No. 05 Civ. 8136 (S.D.N.Y. Nov. 13, 2009).

[254] Pallante, A. Maria, "Orphan Works and Mass Digitization". Report of the United States Copyright Office (2015): 14. Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf.

public benefits of the project and found that it respected all four fair use requirements. Google's use of the works it copied was highly transformative in that it used the text to provide information *about* the work that would be otherwise unavailable "it transformed expressive text into a comprehensive word index that helps readers, scholars, researchers and others to find books"[255]. Full text search combined with snippets previews achieved three goals. One was to suggest books to a user based on the specific information he is seeking. The second was to give context to such information so that an interested reader or researcher could decide whether the book treated his subject of interest in a way suitable to his objectives. And the third and most important result (from the standpoint of copyright and fair use) was that the snippet preview displayed said information in such fragmentary ways[256] that only allow random and scattered access to tiny parts of the work, so that even after repetitive searches, a user would not have a meaningful understanding of the content of the book.

The Court also found that, although Google ran a for-profit digitization program, this didn't disqualify them from successfully claiming fair use. A consequence of their very effective snippet preview system was that it couldn't possibly substitute the books, and so the commercial use of the digitized copies didn't hinder the market value and sales potential of the books that were copied. In fact, the judge even suggested that Google books could have a positive impact on book sales. The Author's Guild appealed the decision of the District Court to the 2nd Circuit, which unanimously confirmed it.

This case showcases all the opportunities and legal problems of mass digitization in the United States. It displays the approach the Courts might take in future cases on similar matters, as it happened in the Hathi trust case[257], and the limits inside which mass digitization projects are forced to operate because of the absence of framework legislation on the matter. Since mass digitization makes it impossible for the scanning companies to clear copyrights, the only use they can make of the digital copies in order to be protected under the fair use exception is to index them and implement innovative search methods. This system is certainly effective in allowing users to find a great number of works relevant to their field of research, much faster and more accurately than they could if they had to

[255] Authors Guild v. Google, Inc. - 804 F.3d 202 (2d Cir. 2015)

[256] A snippet only displays one eighth of a page. One snippet per page and one entire page every ten is blacklisted. Only three snippets are displayed as a response to each search.

[257] The Authors Guild, Inc. v. HathiTrust - 755 F.3d 87 (2d Cir. 2014) was a slightly different case for three reasons: Hathi trust was a not for profit organization, made up by a series of universities that shared the digitized works in their library on a common platform. The uses of the works were full-text searches, for the general public, full access of the text for users with printing disabilities and creation of preservation copies. This case was initiated in 2011, but it was decided by the 2nd circuit one year before the Google books case. Full text searches without the display of significant parts of the work were considered fair use in this case as well.

physically find references in library catalogues or bibliographies of other books. Even if the work found is not in the public domain, and therefore available for immediate full consultation, the information provided by the platform makes it much easier for the researcher to know in which library or bookstore it would be available.

The opportunity offered by the fact that the digitizing entity already has full copies of millions of works expresses its full potential only when full-text search tools are combined with full access to the text. In the current legal system (both in the U.S., as we have already had a chance to study, and in the EU, as we shall see shortly), this is only possible for works in the public domain or published under a creative commons license. Even libraries in the U.S. can't lend digitized copies of protected works that are in their collection, but have to buy the e-book as a separate file, and then can't take advantage of its digital nature because they have to lend it as if it was a physical copy: one e-book only serves one patron at a time[258]. The solution to this problem would be in the introduction Extended Collective Licenses (ECL), a system similar to that proposed in the agreement of 2009, through legislative reform.

For the definition of ECL we use the words of the U.S. Copyright Office report on this same issue: "Under an ECL system, representatives of copyright owners and representatives of users negotiate terms that are binding on all members of the group by operation of law (e.g., all textbook publishers), *even those who are not part of the representative organization(s) that negotiated the ECL*[259], unless a particular copyright owner opts out. A CMO authorized by the government collects the licensing fee and administers payments. It is not quite compulsory licensing in that the parties (rather than the government) negotiate the rates, but it requires a legislative framework and often involves some degree of government oversight"[260]. A reform in this direction, depending on how it is implemented, could open the gate to an unprecedented diffusion of protected works, either in or out of commerce, and of orphan works. The economic returns for rightsholders could be massive, for in the proposed agreement between Google and the Author's guild (and the publishers), Google would keep 37% of the revenue originating from the exploitation of protected works, and the remaining 63%

[258] A CNN article of 2019 written by a Vermont librarian who also sits in the board of the Vermont Humanities Council, reports that a huge problem of e-books is that, contrary to what happens with physical copies, there's no inter-library loan for e-books, and they can't be sold if the library wishes to do so. Moreover, some publishers are accused in the article of adopting policies hostile to libraries that weaponize the worst aspects of e-books. Macmillan publishing for instance is accused of adopting a policy whereby e-books sold to libraries would "expire" after two years or 52 lends and had to be repurchased.

[259] Not part of the original quotation, integrated by me on the basis of further remarks in the same documenta t page 20.

[260] Pallante, A. Maria, "Orphan Works and Mass Digitization". Report of the United States Copyright Office (2015): 19. Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf.

would go to authors and publishers. Google itself was willing to finance a "Book Registry" that would act as a CMO and distribute the appropriate portion of income to the authors and publishers. The main legal problems with setting up an effective ECL system would be to designate sufficiently stringent criteria of representativeness of institutions that can grant ECLs. Another issue would be that, although ECL's could be applied also to works already in commerce, they would risk to interfere with exclusive licensing deals already in place or that an author might wish to conclude in the future, therefore legislation would need to be very articulated to accommodate the right to exclusive economic exploitation of authors/publishers.

The ideal field of application of ECLs, and that in which they would be more advantageous to the public interest is that of orphan works and works that are not commercially available. ECL's applied to these works would return to the public works that are not economically viable to print, or whose authors can't be traced, but are still under copyright protection. Also in these cases, however, even though there is no risk of interfering with economic interest and exclusive exploitation, there are at least two legal issues at play. One would be the right to decide whether and when to first publish a work, which could be protected only ex-post exercising the opting out right, and would allow a rightsholder who doesn't want his work to be shared among the public at all, only to react and ask for withdrawal of the work after it has been put in circulation. The second issue would regard orphan works: when can a work be considered "orphan", what criteria does a rightsholder search have to respect in order for the work to be considered legally orphan, and what if a rightsholder presumed untraceable resurfaces after years and claims to at least be paid for the past use of his work. All issues that would need to be solved in a hypothetical law.

The European Union, as we said before, didn't adopt comprehensive legislation on the phenomenon of mass digitization, but it tackled the different issues we have examined in different ways. It didn't deal at all with mass digitization of protected works that are commercially exploited. It introduced a new statutory exception to the rights of reproduction and making available with the 2012 Directive "on certain permitted uses of orphan works"[261], which we shall examine in more depth in the following subsection. And on the issue of out of commerce works, the EU initially didn't pursue a legislative approach, but the European Commission promoted the negotiation of a Memorandum of Understanding[262]. According to a definition provided by the European Commission itself on its

[261] Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works.

[262] Memorandum Of Understanding (MOU) On Key Principles On The Digitisation And Making Available Of Out-Of-Commerce Works. Available at: https://www.cenl.org/wp-content/uploads/2019/06/MoU_Key_Principles_on_the_Digitisation_and_Making_Available_of_Out-of-Commerce_Works_-20.09.11.pdf.

official website, this MOU is "[…] a sector-specific stakeholder-driven agreement negotiated amongst organisations representing libraries on the one hand and publishers, authors and their collecting societies on the other. It contains the Key Principles that these parties will follow to license the digitisation and making available (including across borders in the EU) of books or learned journals that are out-of-commerce"[263] with the aim to encourage voluntary collective digitization.

Recital 1 of said MOU, on its scope of applicability, indirectly qualified collective licensing schemes which might be drawn up in the future in accordance with its principles as exceptions: "The scope of these principles are books and journals which have been published for the first time in the country where the Agreement is requested, and are to be digitised and made available by publicly accessible cultural institutions as contained within Art 5.2 (c) of the European Union Directive 2001/29/EC"[264]. The quoted article 5.2 (c) grants Member States a power to introduce limitations or exceptions to the right of reproduction "in respect of specific acts of reproduction made by publicly accessible libraries, educational establishments or museums, or by archives, which are not for direct or indirect economic or commercial advantage". The MOU clearly works within the existing EU legal framework and didn't introduce any new exception or grant any new power to State legislators. In this context, Recital 9 recognized that "[..] legislation might be required to create a legal basis to ensure that publicly accessible cultural institutions and collective management organizations benefit from legal certainty when, under an applicable presumption, the collective management organizations represent the rightsholders that have not transferred the management of their rights to them".

State intervention on the matter was encouraged because the principles laid out in the Memorandum left it to the contracting parties to define works that are to be considered as "out of commerce", to "stipulate the steps that have to be taken in order to verify whether a work is out of commerce"[265], and to negotiate remuneration for rightsholders. Granted, the Memorandum also stated that agreements negotiated according to its principles must not be "for direct or indirect economic advantage"[266], that moral rights of the authors should be explicitly respected in future agreements and placed a duty to inform all rightsholders, especially those that are not represented by the contracting

[263]Frequently Asked Questions on the Memorandum Of Understanding (MOU) On Key Principles On The Digitisation And Making Available Of Out-Of-Commerce Works. Available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_11_61.

[264] Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society.

[265] Principle 1, Memorandum Of Understanding (MOU) On Key Principles On The Digitisation And Making Available Of Out-Of-Commerce Works. Available at: https://www.cenl.org/wp-content/uploads/2019/06/MoU_Key_Principles_on_the_Digitisation_and_Making_Available_of_Out-of-Commerce_Works_-20.09.11.pdf .

[266] Id. 17.

CMOs, on the CMOs representing rightsholders of a similar category of works. All these duties and obligations expressed as principles, however, lacked precise criteria for CMOs to be adequately representative, didn't establish common criteria to determine when a work can be considered out of commerce, and didn't put in place clear steps for CMOs to follow when searching for a rightsholder. The actual implementation of these criteria is what would shape a discipline on ECLs on out of commerce works: too strict requirements would make this sort of "blanket" agreements useless, while too lose requirements would risk violating the rights of the authors.

The French legislator swiftly put into practice Recital 9's recommendation and in 2012 approved a law on the digital exploitation of unavailable books of the twentieth century[267]. The mechanism set out by the law was the following: out of print books were to be listed in a database managed by the National Library, while the list had to be adjourned every year and new titles had to be approved by a committee of seven, three members representing the authors, three representing the publishers and one the National Library. A CMO approved by the Ministry of Culture would have the right to grant rights of communication to the public in digital form of books present in the database. Before being free to do so, however, the society had to offer the rights back to the original publisher, which would receive an exclusive licence for ten years, with the obligation to print the book within three years. The legislation was skewed in favour of publishers in two ways: one is the possibility to obtain an exclusive licence of economic exploitation for ten years, which created a fragmentation in the management of rights and, in the word of Caterina Sganga, "ultimately frustrated the market-efficient function of CMOs as a one-stop-shop for blanket licences on a given category of works"[268]. The second is in the withdrawal system: the law required it to be requested jointly by the author and the publisher (and then gave the publisher a two year deadline to exploit the work), and allowed authors to withdraw only if the use authorised by the CMO harmed their moral rights or if they could prove to be the sole owners of digital rights over their works. this last requirement placed upon authors the impossible task of proving that they had never alienated said rights, but proving a negative is a so-called *probatio diabolica*, for it could never be done.

Authors Marc Soulier and Sara Doke brought the French law in front of their National Courts; both the Conseil Constitutionel and the Conseil d'Etat judged the law to be in compliance with

[267]Loi n° 2012-287 du 1er mars 2012 relative à l'exploitation numérique des livres indisponibles du XXe siècle. XX Century because the first article of the law limited its application to books published before January, 1st 2001.

[268] Sganga, Caterina, "The Eloquent Silence of Soulier-Doke and its Critical Implications for EU Copyright Law". 12(4) Journal of Intellectual Property Law and Practice (2017): 321-330. Available at: https://www.researchgate.net/publication/313344701_The_Eloquent_Silence_of_Soulier-Doke_and_its_Critical_Implications_for_EU_Copyright_Law. Page 9 of the Online version.

national principles on author's rights, but couldn't adjudicate the claim that the decree was incompatible with Articles 2 and 5 of the InfoSoc Directive, and the question had to be referred to the EUCJ[269].

The Court found the French law to be an exception to copyright law within the frame of the InfoSoc directive. In examining its compliance with said Directive, it interpreted Articles 2(a) and 3(1) in the sense that prior consent of the author is necessary in order to legitimize any use of protected works. A strict application of this requirement would put in question all ECL schemes in EU Member States that successfully adopt them: it would have implied a policy choice between two regulatory models, creating a legal environment where ECLs managed by CMOs regulated at National level would have been forbidden, and collective management schemes could only be regulated at EU level. This would have gone against the express intentions of the European Commission and the parties that promoted the Memorandum of Understanding, which promoted precisely the first regulatory model. In its decision, in order to avoid such an undesirable result, the Court admitted implicit consent, provided that "-prior information- related to the future use of the work, […] (is) actually and individually provided to authors in order to make sure that they are aware of the consequences of their lack of opposition"[270]. Regarding the opting out system put in place by the French law, that required authors to prove they had never alienated their rights, the Court noted that the InfoSoc directive originally vests such rights in authors, therefore they are presumed by law to be rightsholders of their works; it also constituted a formality forbidden by the Berne Convention. For these reasons, that section of the law was declared incompatible with both EU legislation and International law.

That was the approach of the EU until 2019, when Directive 790 on copyright and related rights in the Digital Single Market[271], outlined an extended licensing scheme to be implemented at national level that allows cultural heritage institutions to obtain non-exclusive licenses for non-commercial uses of this sort of works. The articles in question require Member States to establish a sufficiently representative CMO with the mandate to give this sort of licenses to cultural heritage institutions, to put in place a cost effective method for rightsholders to exclude their works from this licensing mechanism even after the conclusion of a licensing agreement between the CMO and a

[269] Marc Soulier and Sara Doke v Premier Ministre and Ministre de la Culture et de la Communication. EUCJ (C-301/15).

[270] Sganga, Caterina, "The Eloquent Silence of Soulier-Doke and its Critical Implications for EU Copyright Law". 12(4) Journal of Intellectual Property Law and Practice (2017): 321-330. Available at: https://www.researchgate.net/publication/313344701_The_Eloquent_Silence_of_Soulier-Doke_and_its_Critical_Implications_for_EU_Copyright_Law. Page 22 of the Online version.

[271] Directive 2019/790/EU of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC

perspective user. National CMOs are forbidden to grant this sort of licenses for works that were first published in a third Country; art. 9 however provides for cross border uses of out of commerce works saying that "licences granted in accordance with Article 8 may allow the use of out-of-commerce works or other subject matter by cultural heritage institutions in any Member State". The last two Articles on this matter require Member States to implement adequate Publicity Measures and to "consult rightholders, collective management organisations and cultural heritage institutions in each sector before establishing specific requirements pursuant to Article 8(5), and shall encourage regular dialogue between representative users' and rightholders' organisations". This briefly outlined system, as opposed to the MoU, strongly favours non-commercial uses of out of commerce works, but it creates a framework within Member States that can improve availability of works no longer in commerce without the risk of a new Soulier v. Doke case. Due to the fact that this directive is so recent, these guidelines are yet to be implemented in the real world, but sound quite promising in the perspective of increasing access to European cultural heritage. The lack of a system for wider commercial exploitation of these works, or for obtaining licenses that permit transformative uses leave margin for further improvement to legislation in this field.

Having examined both the Google books case in the US and the Soulier and Doke case in the EU(and the new direction of the most recent directive on digital copyright) we can evaluate the approach of each system to the new phenomenon of mass digitization and certain issues connected to this practice which we shall deepen in the next two sections.

In the US the legislator has adopted a hands-off approach to this issue, and the two most prominent mass digitization cases of this decade (google books and the Hathi project case), have been successfully solved only relying on the fair use clause. For this reason, the Copyright Office reports that "[…] representatives of libraries and other user groups contended that mass digitization legislation is unnecessary because courts are capable of evaluating such projects on a case-by-case basis under the fair use doctrine"[272]. The Copyright Office's opinion however is that great flexibility comes at the price of legal certainty, and that the Courts decided in those cases on very fact specific issues: full-text search, display of snippets and access for people with print disabilities are protected by fair use.

In our opinion these are only patches that allow some freedom to mass digitization projects, but don't tackle the fundamental issue. The main problem mass digitization projects have to face is the clearance of enormous amounts of individual copyrights, and the only real solution to this problem is the implementation of some sort of collective licensing scheme, either mandatory or through

[272] Pallante, A. Maria, "Orphan Works and Mass Digitalization". Report of the United States Copyright Office (2015): p.76. Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf.

agreements allowed by a statutory law. In fact the rejected agreement proposed by Google in the Google books case, as we have had a chance to see, effectively put in place a scheme of this kind, and would have permitted both unprecedented full-text access to an innumerable quantity of works and remuneration of authors and publishers. It was rejected precisely because the Court found it a matter reserved to the legislator and because a Court sanctioned exception to copyright law would have given Google an unfair competitive advantage.

The EU, we have seen, has tried to adopt a more regulatory approach. In our opinion, the strength of the EU approach is that it tried to promote collective licensing schemes through the MOU, basing the possibility to adopt such schemes on Recital 18 of the InfoSoc Directive that excluded from its scope Extended Collective Licenses in Member States[273]. The effectiveness of this type of agreements, however, is severely limited by the fact that the EU copyright framework directive sets a very high standard of protection of author's rights which requires consent from every rightsholder, thus nullifying the benefits of ECLs[274]. Only implicit consent or sector-specific exceptions approved at EU level are able to override this stringent obligation to obtain consent.

Particularly striking in the reasoning of the EUCJ is the lack of consideration of factors like the non-profit nature of the French project, the fact that it only applied to works that were not commercially available and the great benefit to the public that such an initiative would have brought. These factors were not ignored by the court out of spite for the public interest or veneration for the authors, but because EU legislation, and Continental systems in general, don't have a general clause like fair use that allows to weigh multiple real world factors relevant to copyright protection and to balance in each case the right of the authors as established by law against the public interest and the type of infringing use.

On the one hand, in Europe, we have witnessed a legal system that tried to adapt copyright to mass digitization through explicit exceptions but lacks the necessary flexibility that would bring out of ECLs their full potential. On the other side of the spectrum, the United States' legal system has been able to accommodate some uses of mass digitized works thanks to the fair use clause, but lacks a systemic discipline, that could only be introduced out by a statutory law, to provide legal certainty regarding all uses of such works.

[273] The EUCJ was able to judge the French law, and its compliance with the InfoSoc directive, according to the argument made by the Attorney General, on the grounds that, before a CMO can manage rights and grant extended collective licenses, rightsholders must have authorised it to manage their rights of reproduction and communication to the public, which rights are within the scope of the InfoSoc Directive.

[274] Implicit consent still requires the CMO to fulfil a duty of personal and actual information of every single rightsholder of works it intends to manage.

1. Mass Digitization

At the end of our study of the phenomenon of mass digitization, it is apparent that the main challenge for those who are involved in the process of digitizing and for common law and civil law legislators alike, is that the sheer number of protected works makes it impossible to deal individually with each rightsholder. If this is a challenge when rightsholders are easily identifiable, the problem becomes even more serious in the case of orphan works.

1.1 The Problem of Orphan Works

In section 3.4 of Chapter 2, we have hinted to the magnitude of the problem of orphan works due to the huge number of works that are estimated to belong to this category. In this section we will study how the issue has been analysed at international level by the World intellectual Property Organization, and at national level by the US and EU, especially in relation to the sector that would benefit most from the use of such works, that of mass digitization. Then we shall examine the current system based on fair use and some proposed solutions at legislative level in the US, and the Orphan works directive in the European union.

Orphan works are defined in a document available on the WIPO website as "works that are protected by copyright, but the author cannot be identified or found"[275]. The reasons for which a work might become "orphaned" are various, and we have listed the traditional ones in Chapter 2, the WIPO analysis however finds that the new informal opportunities of collaboration to a same project offered by digital technologies, can originate a new type of orphan work "Blogs, web-pages and wikis are informally created, often by the collaborative efforts of dozens of users which are impossible to locate"[276].

The WIPO document describes orphan works as a lose-lose situation: "The potential user misses the opportunity to create and profit from a new work, the copyright owner losses the chance to obtain a licensing fee, and the public is deprived of the benefits of the new and future works created by the new user"[277]. Potential users end up not using orphan works, thus depriving themselves and the public of a creative or cultural opportunity, because the search for the rightsholder can be

[275] Lifshitz-Goldberg, Yael, "Orphan Works". WIPO Seminar (May 2010). Available at: https://www.wipo.int/edocs/mdocs/sme/en/wipo_smes_ge_10/wipo_smes_ge_10_ref_theme11_02.pdf.
[276] Lifshitz-Goldberg, Yael, "Orphan Works". WIPO Seminar (May 2010). Available at: https://www.wipo.int/edocs/mdocs/sme/en/wipo_smes_ge_10/wipo_smes_ge_10_ref_theme11_02.pdf.
[277] Ibidem, 27.

burdensome and costly and, unless there is a legislative exception, it wouldn't protect a good faith user from a suit for infringement if the rightsholder were to make himself known.

Proposed solutions to the orphan works problem, as summed up in the WIPO analysis, and as we will see in detail when examining the American and European approach, tend to focus on the diligence of the search for the author as their central element, be them limitation of liability, licensing and collective licensing schemes. Some of the more creative and drastic solutions outlined in the WIPO document regard the enhancing of the public domain by reducing the term of protection for orphan works, or the Israel model where the court could transfer the management of rights of a property whose author is unknown to a government appointed guardian who could permit the use of the work. The implementation of these solutions would also depend very much on the parameters set for a diligent search which would allow a work to be declared orphan.

Before going any further, we shall provide a brief description of how the three main models for the solution of the orphan works issue work, and the differences among them:

- **Limitation on liability**: it's a legal limitation to the actions that can be taken by a copyright holder against an infringer who had performed a diligent search before using the work. for instance, he could not ask for statutory damages or request injunctive relief. His prerogatives would be limited to a reasonable compensation and attribution of the work. disadvantages of this method of dealing with orphan works use is that uncertainty is only limited, not excluded: If the rightsholder of a work presumed orphan resurfaces, there could be reason for a costly litigation, and the "reasonable compensation" to which he would be entitled is still a financial risk for a user in good faith.
- **Exception-Based Model**: this model would require the introduction of legal exceptions to copyright for certain uses of orphan works. Under this model, perspective users that respect certain requirements could use orphan works without the fear of it being considered infringement. Also, rightsholders would not receive compensation. The disadvantages of this model is that, since it is an exception, it has to comply with the three-step-test; therefore, it could only be applied to certain categories of works and permit only some uses by a limited category of users.
- **Licensing scheme**: in this scheme, if after a rightsholder can't be located after a diligent search, the user can apply for a license granted by a government body. The advantage of this system is that a user can be certain that he won't be sued in a hypothetical future by the copyright owner. Its flaws are essentially two, one is the delay between the end of the diligent research and the ability to lawfully use the work, due to the necessity to request and obtain a government-issued license. The other is that licenses are more onerous than a

limitation of liability scheme (as long as a rightsholder doesn't resurface) since applications to obtain one tend to be costly and the government body that grants them also establishes what types of use are permitted and sets the royalties to be paid for licensed uses.

- **Collective Licensing scheme**: this scheme is the most cost-effective and efficient: potential users don't need to track down and negotiate with every single rightsholder or fail to trach them down and ask for a licence on every single work. The agency with the power to grant licenses represents a great number of copyright holders and, if it respects certain requirements of representativeness of authors in a certain field, it can grant licenses at a pre-determined price even on works that it doesn't manage directly (i.e. orphan works).

The US copyright office defines orphan works as "Any original work of authorship for which a good faith prospective user cannot readily identify and/or locate the copyright owner(s) in a situation where permission from the copyright owner(s) is necessary as a matter of law".[278] The 2015 copyright office report on orphan works and mass digitization highlights the importance of the orphan works problem, citing researches that estimate orphan works to be between 17% and 25% of all published books, as much as 70% of all specialized collections, 25% of the Google books corpus and about 50% of the monographs digitized by the Hathi trust project[279].

In contrast with the numeric presence of orphan works in both published books and mass digitization projects, the copyright office finds that the US lacks both a legal discipline and case law on the matter. Since its first report on orphan works in 2006, it notices that fair use jurisprudence which ruled in favour of mass digitization projects[280], considering fair use certain digital uses of millions of non-orphan works, is perceived to be setting a trend that favours the interest of the public or of society as a whole against that of the authors. This trend in the Courts has changed the perception of many stakeholders; for instance, the Library Copyright Alliance (LCA)[281], between 2006 and 2008 considered orphan works top legislative priority, while during the stakeholder consultations held before the 2015 report object of our study, "argued against comprehensive orphan works legislation"[282]. This change of heart, the copyright office points out, is probably a consequence of the

[278] Pallante, A. Maria, "Orphan Works and Mass Digitalization". Report of the United States Copyright Office (2015): p. 9. Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf. Quoting its own Report on Orphan Works published in 2006.
[279] Ibidem, 29. Page 38.
[280] Authors Guild v. Google, Inc. - 804 F.3d 202 (2d Cir. 2015) and Authors Guild, Inc. v. HathiTrust - 755 F.3d 87 (2d Cir. 2014)
[281] LCA is an association of which are part several major American library associations.
[282] Pallante, A. Maria, "Orphan Works and Mass Digitalization". Report of the United States Copyright Office (2015): p. 41-42. Available at: https://www.copyright.gov/orphan/reports/orphan-works2015.pdf. Quoting its own Report on Orphan Works published in 2006.

aforementioned legal trends: although no case on orphan works has been tried in front of U.S. Courts, given the most recent decisions on mass digitization, it is plausible that certain uses of orphan works would also be considered fair use. From this perspective, the introduction of a statutory law would entail a greater legal complexity, restrictions and the burden of a diligent search.

The copyright office goes on to examine all the different types of solutions to the orphan works issue that w have listed and described above, and ends up recommending a Limitation on Liability model as the most suitable for dealing with orphan works in the American legal system. In fact, a 2008 bill that never became law, the Shawn Bently Orphan Works Act, proposed to deal with this issue using precisely this legal tool. The Copyright Office praises it for being technology neutral, innovative and balanced, but proposes three interesting amendments (to be applied to future bills that would hopefully pass) to the original provisions of the Shawn Bently Act, that limited damage requests and injunctive relief for rightsholders whose works had been used after a diligent search. The first modification is to allow judicial consideration of the result of foreign diligent searches, the second is to introduce a Notice of Use provision and the third is an exception to the restriction on injuctions for use of orphan works in derivative works.

The last two proposed modifications are especially relevant to our research because they showcase a slight convergence between the Anglo-American and the Civil law model. The second modification that would require a notice of use, as the function of enhancing the probability that the relevant rightsholder emerges. It seems like a small detail, but it's a provision typical of author's rights legal systems, where the connection between an author and his creation is just as important as the public interest and must be safeguarded as much as possible. The third modification draws inspiration from author's rights doctrine even more clearly: the legal protection of integrity concerns of creators is one of the most important features of moral rights.

The absence of statutory legislation or case law regarding orphan works makes the copyright office analysis and recommendations the only elements we have to inquire the approach and attitude of the United States' legal environment to orphan works. The European Union, on the other hand, has adopted a more "regulatory" approach, which will give us more elements to evaluate the effectiveness of its approach.

In 2012, the European Union adopted a Directive[283] that establishes harmonized rules for the digitization and online display of orphan works. Art. 2 of the directive states that a work or phonogram can be considered orphan " if none of the rightholders in that work or phonogram is identified or, even if one or more of them is identified, none is located despite a diligent search for the rightholders

[283] Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works.

having been carried out and recorded in accordance with Article 3". From this definition emerges the central role of diligent search, which we have described before as the focal element of all legislative schemes that deal with orphan works: not only is it the decisive factor in deeming a work orphan, but we also infer that art. 3 lays out clear steps for a search to be considered diligent.

This Directive puts in place an exception-based[284] model to deal with orphan works, therefore its solutions are physiologically limited, for the reasons we have described above when explaining this scheme, to certain uses, certain categories of users and certain works.

Article 1 of the Directive limits the scope of applicability of the directive to the following users: "libraries, educational establishments and museums, as well as by archives, film or audio heritage institutions and public-service broadcasting organisations", which are essentially only knowledge and cultural heritage institutions. Commercial uses of orphan works are even more clearly excluded by the scope of this directive in the same article that goes on to say that those institutions may be authorized to perform certain uses of orphan works only "in order to achieve aims related to their public-interest missions".

Article 6 is titled "permitted uses" and limits the uses of orphan works to the enjoyment of only two exclusive rights: the right of making them available to the public and the right of reproduction for the purposes of digitization, making available, indexing, cataloguing, preservation or restoration. Paragraph 2 of the same article goes on to repeat that these restricted uses by the already restricted body of institutions that benefit from this exception model are possible only in order to achieve their public interest mission and that revenues may be generated by the use of orphan works only to cover the cost of digitizing and making available to the public.

The third limitation to the scope of this directive is to the type of orphan works that can be used. Art. 1 paragraph 2 limits it to written works , cinematography or audio-visual works and phonograms that are already "contained in the collections of publicly accessible libraries, educational establishments or museums as well as in the collections of archives or of film or audio heritage institutions", and to audio-visual and cinematographic works " produced by public-service broadcasting organisations […] and contained in their archives. Photographs are oddly excluded from this list. Moreover, another requirement is that the already restricted list of orphan works above can only be used in compliance with the directive if they are first published or broadcast in a Member State[285].

[284] Recital 20 states that "In order to promote learning and the dissemination of culture, Member States should provide for an exception or limitation in addition to those provided for in Article 5 of Directive 2001/29/EC […]"

[285] Paragraph 3 of the same article contains a cryptic provision that would allow uses of unpublished works "which have been made publicly accessible by the organisations referred to in paragraph 1 with the consent

The adoption of an exception-based model implies severe limitations, as we have seen, on lawful uses of orphan works. The tendency to severely limit commercial uses and possible transformative uses by other creators that we have seen in the 2019 Directive when it deals with out-of-commerce works is systemic in this field and stems from the orphan works Directive. In our opinion, if non-commercial uses and free access through cultural institutions to previously inaccessible knowledge is important, it is just as important to not demonize commercial and transformative uses. We believe that a work is alive when it can be adapted, when there is interest in the public and in commercial distributers to engage with it. For example, I know that I can find almost any culturally relevant written work that has entered the public domain in pdf format for free on the internet.

Let's take as an example "I Promessi Sposi" by Aleesandro Manzoni, which has entered the public domain quite some time ago. Contrary to what would happen with an orphan work (or out of commerce work) digitized by a cultural heritage institution, my options are not limited to the enjoyment of the work through the web portal. I can download it and read it offline on my laptop, or I could transfer it to my Kindle in three easy steps and read it there, or I could even print it and read it in a physical form. But I would never do that: aside from the fact that I have had to study it in high school as a fundamental element of Italian literature, I would buy a nice edition professionally commented and checked for errors and enjoy the form as well as the content. If the content of orphan works and out of commerce works is available for consultation, in the public interest, why shouldn't the public be able to enjoy the property of a nicely refined edition? Sure, publishers should not be allowed to profit at the expense of the author (in the case of orphan works) or of the author's will (in the case of out of commerce works), but a solution less drastic than prohibiting all commercial exploitation of these works is certainly possible if we think of the Court's application of the fair use clause in the Google books case[286].

On the subject of transformative uses, we can draw another example from Alessandro Manzoni's most famous novel and my personal experience. The spark that allowed me to love this work, which I previously found quite boring, was a short musical called "I Promessi Sposi in 10 minuti" by Oblivion[287], in which several Italian popular songs are modified to fit a brief theatrical adaptation of the book. This is a wonderful example of a (well executed) derivative work that

of the rightholders, provided that it is reasonable to assume that the rightholders would not oppose the uses referred to in Article 6" since this provision doesn't regard orphan works and refers to assumptions to be made on the rightsholder's opinion on uses of his work we don't analyse it in this setting.

[286] As we have seen in section 1 of this chapter, the Court considered fair use Google's use of protected works even though the project had a for profit nature.

[287] https://www.youtube.com/watch?v=c9CxZnsbY04

generates interest and allows an unconventional perspective on the original work. In the present example, it generated a personal interest in a work that is usually perceived as a boring part of the literature curriculum in Italian high schools. This example highlights the important part played by transformative uses in the life of a work and as a source of inspiration for the production of new works, surely two desirable objectives to be pursued and in the public interest. For these reasons, in our opinion a model that allows creators to apply for a licence and lawfully interact with orphan (and out of commerce) works would be more beneficial to both creators and the public.

Having examined the relevance of orphan works in the context of mass digitization and how the US and the EU deal with it, we shall deal with another issue caused by this activity. The transformation of text from a physical to a digital form, allows computer programs to perform, for example more accurate researches, extract information from aggregated categories of texts and identify trends through a process called "text and data mining", an issue that we tackle in the next section.

1.2 Text Data Mining

In the previous sections we have seen the direct impact of mass digitization of books on traditional issues dealt with by copyright legislation: mass digitization required new models for authorizing lawful uses of protected works, due to the impossibility to deal with every single rightsholder, and orphan works, which don't even have a known author, made the question even more challenging. In this section, we focus on new practices and uses made possible *by* mass digitization and how US case law and the latest EU copyright reform tackled the issue.

First, a definition of text mining taken from the Encyclopaedia of Database Systems shall clarify the nature of this activity and allow us to understand legal solutions regarding it: "Text mining is the art of data mining from text data collections. The goal is to discover knowledge (or information, patterns) from text data, which are unstructured or semi-structured. It is a subfield of Data Mining (DM), which is also known as Knowledge Discovery in Databases (KDD). KDD is to discover knowledge from various data sources, including text data, relational databases, Web data, user log data, etc. Text Mining is also related to other research fields, including Machine Learning (ML), Information Retrieval (IR), Natural Language Processing (NLP), Information Extraction (IE), Statistics, Pattern Recognition (PR), Artificial Intelligence (AI), etc."[288]

[288] Cai Y., Sun JT. (2009) Text Mining. In: LIU L., ÖZSU M.T. (eds) Encyclopedia of Database Systems. Springer, Boston, MA. Available at: https://doi.org/10.1007/978-0-387-39940-9_418.

Text data mining is especially important in the functioning mechanism of search engines (such as search engines that find works in mass digitized libraries), in the development of machine learning tools capable to develop natural language processing[289] tools (for example, Alexa) and in the field of Research (for instance to find correlations between sets of previously published papers).

In the United States TDM has come to the attention of the Courts in the two cases that saw the Author's Guild against Google Books in one case and the Hathi trust in the other. Since the facts of the case have already been outlined in section 1, we shall focus on the reason why text mining has been found to be fair use by US Courts in both cases.

The first fair use factor is "…the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes".[290] Supreme Court's decision in the Campbell case of 1994[291] has held that commercial use does not exclude fair use, and the focus of the Courts should rather be on whether the use is transformative, meaning that it should have "an entirely different function and purpose".[292] The Courts in both Author's Guild cases held that TDM methods generate new information about the work, without revealing the content of the work, therefore copying of protected works was considered fair use as it is highly transformative.

The second fair use factor, "the nature of the work", is not considered relevant by the courts in the issue of text and data mining.

The third factor taken into consideration to assess the fairness of an infringing use is the amount and substantiality of the portion used. At first sight this factor doesn't seem applicable to the present case, because the entirety of the works had been copied. However, Courts evaluate this factor from both a quantitative and qualitative perspective, meaning "how much of the value of the copyright owner's original expression has been usurped by the defendant's actions"[293]. TDMs, always require that the entirety of a work is copied, but the information communicated to the user after "mining" the work is not the original expression of the author.

The fourth factor is an evaluation of the effect of the use on the potential market or value of the copyrighted work. In the case of text and data mining the use of the work is both transformative, meaning that it doesn't serve the same purpose of the original, and non-expressive, meaning that it

[289] Natural Language Processing refers to the ability for a computer to understand the meaning of human language.
[290] Section 107, Title 17 of the U.S. Code.
[291] Campbell v Acuff-Rose Music, Inc. 510 U.S. 569 (1994).
[292] Sag, Matthew, "The New Legal Landscape for Text Mining and Machine Learning". *Journal of the Copyright Society of the USA, Vol. 66* (2019): 316, Available at SSRN: https://ssrn.com/abstract=3331606.
[293] Ibidem, p 325.

doesn't communicate the content of the protected work. TDMs therefore can't pose a threat to the normal market exploitation of the works.

At the end of this analysis in which we have summarized the reasoning of the Courts in both Author's Guild cases on the matter of text and data mining, given the clear reasoning that informed the decision by both Courts, we can safely say that Text and Data Mining is considered fair use in the United States and can freely be exercised on protected and unprotected works alike.

The European Union has recently disciplined the activity of Text mining along with data mining in the new Directive 790 of 2019. Article 2 of the Directive defines "text and data mining" as "any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations;".[294] Recital 8 of the same Directive in acknowledging the benefits that text and data mining can bring to the research community and the prevalence of this technology across the digital economy solves the legal uncertainty regarding text and data mining in the European Union: whereas before this directive "Some scholars have advocated a normative interpretation of the reproduction right, which would restrict its scope to exploitative uses -of the work as the work-, and would rule out non-exploitative uses such as mining"[295], recital 8 clearly states that "Where no exception or limitation applies, an authorisation to undertake such acts is required from rightholders". At the same time, the Directive provides the exception that allows these activities.

The Directive creates two parallel system, one for text and data mining for the purposes of scientific research, where it provides in Article 3 a total exception to the right to authorize copies for database owners and copyright holders in general in favour of "research organisations and cultural heritage institutions in order to carry out, for the purposes of scientific research, text and data mining of works or other subject matter to which they have lawful access", and prohibits in art. 7 any contractual provision to the contrary. Art. 4 on the other hand, regards all users other than research and cultural heritage institutions and while it provides an exception in favour of all text and data mining activities, it also grants rightsholders the faculty to opt out "in an appropriate manner, such as machine-readable means in the case of content made publicly available online". Art. 7, moreover, doesn't prohibit contractual agreements contrary to Art. 4: this combination of factors "effectively

[294] Art. 2, Directive 2019/790/EU of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.

[295] Hugenholtz, Bernt, "The New Copyright Directive: Text and Data Mining (Articles 3 and 4)". *Kluwer Copyright Blog* (July 2019). Available at: http://copyrightblog.kluweriplaw.com/2019/07/24/the-new-copyright-directive-text-and-data-mining-articles-3-and-4/?doing_wp_cron=1598036082.2002339363098144531250.

creates and legitimizes a derivative market for text and data mining, which right holders may wish to control, license or even entirely prohibit"[296].

Once again, the United States legal system is able to evolve and cope with the new challenges arising from mass digitization. If in the case of orphan and out of commerce works a statutory reform seemed the more adequate solution, in this case the fair use clause allows the American Courts to go straight to the point of Text Data Mining, understand this phenomenon and decide accordingly to its highly transformative and non-expressive intrinsic characteristics to consider it fair use. Of course the lack of statutory rules doesn't provide a high level of legal certainty, and future judges in future cases might go in a different direction, but the stringent arguments of four Courts in two very high profile cases do feel like a solid legal ground on which text data miners can operate with a justifiable presumption of not infringing copyright. The European Union on the other hand, in the previous instances of orphan and out of commerce works has not made the most out of its regulatory efforts in excluding commercial uses in both cases. In this instance, while general users are finally taken into consideration, a certain eagerness to favour CHIs is still perceivable. This, combined with the high level of protection of the authors that informs author's rights legal systems, led to a reform that risks jeopardizing the future of commercial text and data mining in the Union. In fact, giving opting out rights to authors and allowing contracts on TDM activities risks going to the advantage of publishers: "While most content owners will have no incentive to prohibit or monetize data mining, some right holders will. Scientific publishers, for example, are well aware that their publishing portfolios have informational value beyond the published articles they have aggregated. Indeed, some publishers already offer paid-for text and data mining as value-added services and will be reluctant to grant TDM licenses to third parties. Other publishers are still in the process of developing licensing strategies to capitalize on this emerging market"[297].

[296] Ibidem.
[297] Ibidem.

Conclusion:

At the beginning of our journey we set out to inquire how did the digital revolution impact the fundamental elements of copyright (such as the notion of creativity and originality, the exclusive economic rights, and the public domain), and the balance between the interests of rightsholders and the public. According to our research, the impact has been strong and is still ongoing.

Already at the beginning of chapter 2, when we were in the process of analysing the essence of the author, who one might reasonably assume is the most fundamental element of the creative process, whose ideas and effort mould a work into existence, we saw the foremost avant-guard of the digital revolution (namely machine-learning technology) pose an existential threat to that assumption. The ever more autonomous assistance that partially generative machines can offer in the process of creating works is at the moment still the object of academic speculation[298], there is however little doubt that in the decades to come, as machine complexity increases, the attribution of a creative work and its protection might become problematic.

From then on, every element of copyright we examined was either impacted by the digital revolution or indirectly involved in evolutive phenomena. The right of reproduction had to be reinterpreted in order to allow lawful uses of software and of other protected material fixated on physical supports and an entirely new right, the right of making available to the public, had to be introduced in order to protect works uploaded to the Internet, but also to allow users to access them. The discipline protecting joint works, which is incredibly complex already at the level of movie production, where the project and the roles of the contributors are well defined, was perceived by certain programmers as an unnecessary burden on cooperative efforts and sparked the grassroot movements of open source and free software. The problem of orphan works still under copyright protection, once not too consequential, now posed a threat to the success of mass digitization projects; in this context, the strict enforcement of the traditional moral right to attribution can help prevent the future worsening of this problem. On the subject of moral rights, European Countries which call the

[298] Ginsburg, Jane C., & Luke Ali Budiardjo, "Authors and Machines". 34(2) *Berkeley Technology Law Journal* (2019): 1-116. Available on the SSRN website at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3233885. In the conclusion of the paper in which she and dr. Budiardjo examine different types of interactions between authors and machines and outline a scenario compatible with our current level of technological development, that would produce a work without a creative contribution from a human which would qualify him as the author. However, having analysed possible legal solutions, they recognize that "[…] without empirical evidence, it would be imprudent (and premature) to seek to design a regime to cover authorless outputs".

discipline regarding protected works “author’s rights” and have defended moral rights for centuries, introduced rules to the effect of works-for-hire contracts to regulate software and databases created by employees.

What has been interesting, though predictable was to notice the radically different approach to regulating the new challenges taken by the U.S. and the EU respectively. The United States, thanks to the fair use clause and to Courts more than willing to adapt past concepts to new challenges, have been in general swifter in responding to new needs. This flexibility, however, comes at a price: although the Anglo-Saxon justice system is more than capable of handling issues for which an express rule doesn’t exist, this should only be a temporary measure while the legislative branch drafts a more adequate, organic and stable discipline. Time and time again, however, we have seen the legislator not raise to the occasion and meet the need for regulation, probably on the grounds that, one way or another, Courts are able to make decisions anyways. This has been especially clear on the issue of databases, which are not protected in American law as such, but as normal collective works, thus requiring the content of the compilation to possess a modicum of creativity and disregarding the intellectual work needed to create the architecture of an efficient digital database. As another example, on the matter of mass digitization, in spite of multiple recommendations by the Copyright Office and although case-law on the matter is scarce and specific to the facts of the case, Congress is yet to draw up a reasonable system of collective licenses regulating out of commerce and orphan works.

The European Union is positioned on the opposite side of the spectrum, for new needs are often met with directives tailored to answer the question of the moment. For instance, in the 1990s were approved the software and database directive. In 2001 the notorious InfoSoc Directive drew up a framework in line with the WCT and WPPT and up to date with the new challenges, and in 2019 we saw another reform, some parts of which we have analysed in the last chapter. There are however three flaws, in my opinion, in the EU approach.

The first is the absence of a general exception similar to the fair use clause: it could be easily written in a directive, so that all Member States would have to introduce it in their legal systems, and the EUCJ could over time refine the scope of such a clause, and how it has to be interpreted by national Courts in order to comply with European legislation.

The second is that the copyright framework set up at European level tends to be too fragmented. Each directive deals with certain specific problems, and the lack of a common European copyright framework means that every Member States implements directions and directives arbitrarily according to its specific copyright framework. We have seen instances of problems caused by this fragmented system when examining the difficulty of harmonizing something as seemingly

straightforward as the duration of copyright protection. On the more complex matter of mass digitization of out of commerce works we have witnessed proper chaos: northern-European Countries extensively used ECLs for many purposes which advanced the public interest, including mass digitization projects by libraries and museums. The European Union adopted a 2011 directive dealing with orphan works and released a Memorandum of Understanding encouraging Member States to put in place collective licensing schemes. When France did so, however, the EUCJ ruled the reform contrary to EU copyright principles, and in so doing cast doubt also on the lawfulness of the similar legal regimes that are in place in Northern European Countries. Finally, the latest 2019 reform drew up a very strict legal scheme on collective licensing of out of commerce works that is yet to be implemented in the various Member States but could finally bring some certainty to this matter. Though it is certainly a radical step, it would perhaps be useful to at least discuss at European level whether harmonization of certain areas of copyright, mainly in response to technological challenges, has been effective or if it would make sense to make copyright an exclusive competence of the Union and draw up a comprehensive author's rights protection discipline. The lesson of the United States, that introduced in their constitution a provision to make copyright an exclusive competence of the federal State, could be followed, *mutatis mutandis*, in the EU.

The last flaw I saw in the European approach is the ideological repulsion for exceptions applied to commercial uses. The example of orphan and out of print works is eye-opening. Allowing collective licensing for commercial uses of those kinds of works would not necessarily imply that evil corporations would steal works and profit from them. It is possible to find solutions that would ensure fair retribution and the right to opt out to the authors. This hostility to free uses in commercial projects is, once again, not shared by the United States. The fair use clause imposes on the Courts a duty to evaluate the commercial nature of an infringing act, but it doesn't preclude them from finding a use "fair" in spite of its commercial nature. If we think that the whole discussion on mass digitization projects was initiated by a private commercial project, the Google Books project, and that Europe, after having recognized the importance of this sort of endeavours, has had to "force start" publicly sponsored projects and is currently losing the digitization race, it isn't unreasonable to argue that it should probably re-evaluate this approach.

Another aspect that emerged from our research is the increasing importance of access and flexibility in the digital age. We have seen a trend at social level of citizens being the change they wanted to see in the digital world. Mass piracy before the introduction of streaming services that offered more reasonable prices, the birth of free knowledge movements: free software, open source, creative commons. We have seen Courts in the US recognize the social value and the public benefit brough by the Google Books project, and even in the European Union the importance of access to

cultural products and researches is seen as a value to protect. Blanket licenses, extended licenses and public however risk to not be enough. Even if legislators manage to create a perfectly efficient system that allows private companies or cultural heritage institutions to finally clear with ease the vast amounts of licenses they need to offer their services, other challenges lay ahead. It is important to think on the role of *exclusive* economic rights in the digital world. As long as these licenses can be of exclusive nature, the peril would be to see protected content blocked behind a multiplicity of different platforms that may offer access to their collection at reasonable prices, but if one was to subscribe to all platforms offering that kind of work, the cost would be unreasonable.

The last International conventions on copyright date back to the late ‘90s, when the digital revolution was moving its first steps: there were no social networks, no streaming services, no mass digitization projects, and no platform for creators (like YouTube). The public is now much more aware both of the effort necessary to create (with the Internet anyone can create a short movie, a review video, a parody, a meme) and of the full potential of today’s digital and communication technologies. It might be time to call for a new International conference, to re-think the balance between the public and rightsholders, possibly even to free derivative works, but also to introduce protections for the small time creator/user against the super power of content driven multi-national companies.

This is the result of our thesis, these are my conclusions on the impact of the digital revolution on the fundamental elements of copyright, on the reactions of the U.S. and the European legal systems and on the path to follow going forward.

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