The copyright law framework and its interaction with open access repositories in Europe

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Abstract
The paper examines the European copyright framework and its interaction with open access repositories. Access to information resources has become a modern necessity that needs to be met to share equitably the wealth of the European society. The Directives with intellectual property provisions to enhance copyright law policy makers are the foundation of the European copyright regime. This statement helps me to clarify the design and assumptions underlying open access practice in Europe. The paper analyses strengths and short-comings of these Directives in relation to copyright protection and open access practice among European member states.

Keywords: open access, copyright, governance, European Union

Introduction

Scholars assert that an important factor for the economic integration in Europe is the concept of information (Goodwin and Spittle 2002). Given the fact that ‘information society’ is a critical element of modern Europe it is acknowledged that information resources play crucial role in the context of economic integration and future research policy in Europe. In this context, the consultation on the future of such policy conducted by the European Commission in 2011 and led to producing new foundations for the upcoming Eighth Framework program for research (FP8), renamed Common Strategic Framework for Research and Innovation funding (CSFRI) and presented under the ‘Horizon 2020’ program (Granieri and Renda 2012).

In this paper, there is discussion about the framework of Open Access Repositories (OARs) in the European Union. The ongoing technological growth boosts the production of information and relevant needs (Castells 2002). Accessibility to information resources has become a modern necessity that needs to be met to share equitably the wealth of the European society (Héritier 2003).

An examination of the Directives that are the foundation of the European copyright regime helps me to clarify the design and assumptions underlying modern framework of open access in Europe. Based on this information an analysis follows of the strengths and short-comings of the European directives in relation to intellectual property, copyright protection and related rights, sharing information and open access among European member states that constitute the modern European copyright regime. The analysis and explanation of the governance framework for OARs in the European Union will help me argue that it could be an instrument to balance copyright owners’ and end-users’ interests.

The European Directives will be studied as a contemporary example of how copyright and digital revolution have adapted to create new possibilities, including that of OARs. The open access practice in the European context was introduced through the program titled ‘Horizon 2020’ which focuses on research and aims to foster information accessibility based on open access. The example of open access to research can be used to show whether an information society can facilitate new ways of thinking and further access to information resources. In conclusion, mandates, statements and projects in relation to open access adopted

from European institutions will be also addressed to present pragmatic justifications for open access.

Scholars agree that the European Directives, which will be examined below, establish the current copyright regime in Europe (Majone and Baake 1996). The basic scope of the European Union is unification and harmonization of all European member states' national laws (Antezana 2003). Therefore, I argue that since Europe Union aims to harmonize and unify national laws it is only reasonable that it provides specific copyright policy, which could be implemented by the European countries. Such policy, found in the directives is examined below.

An analysis and explanation of the rationales for the governance framework of open access repositories in the European Union would help identify the standard that others may wish to follow.

1. The European copyright regime

From the Treaties of Rome (January 1958) to the Maastricht Treaty (November 1993) Europe moved gradually towards close to achieving one of its overarching objectives, i.e. economic integration (Dorrucci et al. 2015). The examined Directives below show that their objective is the harmonization among national or local regimes for intellectual protection in Europe. Hence, copyrighted goods (e.g. books, music, films, software etc.) and services (e.g. services offering access to these goods) will move freely within the internal market, which constitutes substantial part of the European integration. This section illustrates the impact of Europeanization on local structures of the member states (Cowles, Caporaso, and Risse-Kappen 2001). In other words, the impact of developing explicit governance structures, at the European level, that lead to integration.

Moussis argues that the course of the multinational integration process in Europe is established by three currents that converge at certain points and empower the main flow: (i) the growing number of participants; (ii) the ongoing increase of their aims during the stages of integration progress; and (iii) the constant increase of their activities by the development of common policies. It is worth recapitulating the main facts on these major trends of European integration (Moussis 2014).

The process of the European integration initiated in 1951 as a customs union regarding the resources of coal and steel among six countries[1]. At the time, the union was based on the European Coal and Steel Community (ECSC) Treaty and it was named as such. The ECSC Treaty introduced the principle of supranationalism. In general terms, such practice forms the rationale for European integration and lead towards the founding of current European Union (Tsebelis and Garrett 2001). In 1958, the ECSC countries extended the ambit of union's operation to other sectors of their economies. Hence, another treaty was signed and called as the European Economic Community (ECC) Treaty (Kohler-Koch and Eising 1999; Craig and Búrca 2011). In 1973, three countries joined the ECC which had already preferred intergovernmental collaboration within a common trade area that its boundaries were aligned with the borders of the member states (Jones 2003). Since 1992, the European common market was gradually emerging, it had twelve-member states bonded with the Single European Act. Moreover, the member states signed the Treaty of Maastricht that lead towards the next stage for the European integration (Chalmers, Davies, and Monti 2010). In 1995, another three countries joined the union and in 1997 the fifteen-member states decided to unify/ integrate the fields of freedom, security and justice, based on the Treaty of

[1] Belgium, France, West Germany, Italy, the Netherlands and Luxembourg

Amsterdam. In 2007, the European integration was quite extended and twelve new member states joined the European 'family' based on the Lisbon Treaty (Davies 2014).

The process of the European integration has followed a steady evolution and mainly aims to convergence the economies of the European member states (Button and Pentecost 1995; Whitley and Kristensen 1996; Cuadrado-Roura 2001). Accordingly, this convergence will lead to a political union (Sabel and Zeitlin 2010; Hix and Høyland 2011). It should be mentioned that in December 1991, during the Maastricht process, the European member states decided to start elaborating on such convergence and thus as an overarching aim the Economic and Monetary Union (EMU) was adopted. Therefore, the Maastricht process clarified that single or mutual monetary policy and harmonization of regional economic policies should be adopted to achieve social cohesion (Porte, Pochet, and Room 2001). In addition, the Maastricht process was accomplished with the circulation of the euro currency, in 2002. At the time, European member states started considerations for coordinating in the context of non-economic policies. The European Union has become a new global actor that would play a crucial role in the international arena (Bretherton and Vogler 1999; Lucarelli and Fioramonti 2009). Thus, the European member states reached the threshold for an ever-closer political integration (Cowles, Caporaso, and Risse-Kappen 2001; Schimmelfennig 2003; Dinan 2010).

Thus, the policies pursuing common targets and serving common interests are the foundations of the European integration process. European citizens' supreme interests are the certainty for peace among the European neighbors and ongoing improvement of their social welfare (Taylor-Gooby 2004; Abrahamson 2005). The policies of the European Union serve those interests efficiently (Manners and Whitman 2000). This section examines one of these common policies based on distinct Directives regarding the copyright protection and associated issues. In addition, this section explains the current regulatory regime in Europe. Given the fact that European Union operates in the context of other International Conventions and Agreements it follows that its role should be compatible with other international instruments. The interplay between specific international agreements with the European copyright regime and its regulations will be considered. The examined European Directives in this paper reflect European countries' obligations under these international agreements.

The Berne Convention for the Protection of Literary and Artistic Works (1886) represents the first attempt on behalf of European countries to protect authors' rights for their literary and artistic creations. As the years passed by new technological advances in the technology for the transmission of speech sounds (phonograms)(Tschmuck 2012) and information (radio and television) emerged. Thus, new necessities also emerged in terms of copyright protection (Marriott 2009). In 1994 World Trade Organization (WTO) introduced the TRIPS Agreement. Its overarching objective is to diminish obstacles regarding the international trade and considering the need to promote effective protection of IP rights, and to ensure that measures to enforce IP rights do not themselves become impediments to legitimate trade. The TRIPS Agreement illustrates a tight connection between WTO and the World Intellectual Property Organization (WIPO). In 1996, WIPO introduced two international treaties that build upon Berne Convention and its principles in terms of intellectual protection: a) WIPO Performances and Phonograms Treaty which established the protection of performers, producers of phonograms and broadcasting organizations provides protections for them (WIPO 1996); and b) the WIPO Copyright Treaty which mentions two subject matters to be protected by copyright: i) computer programs, whatever the mode or

form of their expression; and ii) compilations of data or other material, in any form, which, because of the selection or arrangement of their contents, constitute intellectual creations.

In general terms, European Directives' objectives stem from or are constructed in accordance with the European Commission Treaty provisions which enable Europe to match Member State's regulations regarding free movement of goods and services (Arts 45, 47(2) and 55) and, specifically, to produce the internal market (Art. 95)(Lang et al. 2004). More significantly, the European Union attempts to satisfy a few issues through the Directives analyzed below. The European Union a) pursues to establish standards; b) to harmonize national copyright regimes into a European one/common one; c) to diminish national discrepancies among European member states; d) to settle/construct the necessary level of protection to foster creativity and secure investments; e) to promote cultural diversity; and f) to improve the access for consumers and business to digital content and services across Europe.

Yet, during the last years the European Commission monitors the timely and correct implementation of European copyright law while the Court of Justice of the European Union (CJEU) has developed a substantive body of case law interpreting the provisions of the directives. This has significantly contributed to the consistent application of the copyright rules across the European countries. A brief analysis of the directives that constitute the European Union's regulatory framework for copyright and neighboring rights follows.

1.1 Directive on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission ('Satellite and Cable Directive'), 1993/83/EC 27 September 1993

The first Directive to be examined is the *Directive on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission*. Scholars argue that there are several reasons that lead to its introduction (Sandholtz 1993; Sandholtz and Sweet 1998). In particular: a) the European Treaty establishing the European Economic Community (articles 52(2) and 66 thereof) provides for the establishment of a common market and an area without internal frontiers; b) measures to achieve this include the abolition of obstacles to the free movement of services and the institution of a system ensuring that competition in the common market is not distorted; c) the European Council may adopt directives for the coordination of the provisions laid down by law, regulation or administrative action in Member States concerning the taking up and pursuit of activities as self-employed persons; d) broadcasts transmitted across frontiers within the European Community - specifically by satellite and cable - are one of the most important ways of pursuing these European objectives; and e) the European Council has already adopted Directive 89/552/EEC of 3 October 1989 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities.

Since 1993 and as broadcasting and cable transmission were evolving the distribution of information increased and consequently copyright issues emerged. As Evens and Donders argue there has been a great change in the European market regarding satellite broadcasters (Evens and Donders 2013). Moreover, broadcasters used to depend on simple revenue streams for several years until when audiovisual markets were liberalized. At that time a dual order came up in which public service broadcasters' funding model remained unchanged and private (Michalis 2008). Through this Directive the need of protection for the transmitted

information was introduced in the context of the developing new environment derived from technological growth.

The Satellite and Cable Directive concerns the harmonization of copyright laws in the field of broadcasting. In addition, it aims to facilitate the licensing of copyright and related rights and thereby to improve the cross-border provision and reception of satellite broadcasting and cable retransmission services in the European market. Furthermore, it has been in force since 1st January 1995 and pursues to facilitate the cross-border transmission of audiovisual programs, particularly broadcasting via satellite and retransmission by cable. For satellite broadcasting, the directive establishes that the copyright-relevant act takes place in the country of origin of the broadcast. In the case of simultaneous cable retransmissions, the Directive introduces the collective management of the rights. In 2002, the European Commission issued a report on the functioning of this directive. Since then, new technological and business models for content distribution have emerged. The Commission considered that it is necessary to adapt copyright rules to these new technological realities in order the rules to continue meet their objectives. The emergence of personal computers brought the necessity of protection for the associated information databases. Thus, the European Commission introduced another pillar for the European copyright regime, which is examined below.

1.2 Directive on the legal protection of databases ('Database Directive'), 1996/99/EC 11 March 1996

This Directive addresses the importance of legal protection of databases (Schneider 1998; Mazziotti 2008; Seville 2009). Gradually databases of information were created around the European Union and therefore they needed to be protected (Davison 2003). In particular, this Directive was adopted in February 1996 and created a new exclusive 'sui generis' right for database producers, valid for 15 years, to protect their investment of time, money and effort, irrespective of whether the database is in itself innovative ('non-original' databases) (Wald 2001).

Databases also introduced the electronic information industry, which is one of the fastest growing areas of the European economy (Casey 1991), comprise an important mechanism to gather information (such as demographic, bibliographic, medical, technological, news, financial and travel-related material) (Ramakrishnan and Gehrke 2000; Revesz 2009). The development of Internet in the 1990s demonstrates that the Internet is a tool to disseminate information for information databases can be hosted as online resources (Quah 2000). The Internet has profound effect on many aspects of the social, cultural, economic, and legal systems and determines a challenge to regulate in copyright context (Samuelson 2000). It follows that databases can also host information relevant for medical treatment, education, scientific research and other fields that contribute to the growth of society. Therefore, access to such information is vital for every section of the global society. Gathering different sorts of information and storing it on databases lead towards to Europe's creative output which plays meaningful role in terms of growth, identity and social progress only if copyright and related legislation do not deliver on their objectives in isolation. Hence, the European Commission considered that another Directive should be introduced to provide harmonization by addressing certain aspects of copyright and related rights. The analysis of this Directive follows below.

1.3 Directive on the harmonization of certain aspects of copyright and related rights in the information society ('InfoSoc Directive'), 2001/29/EC 22 May 2001

Throughout the world, information and communications technologies are generating a new industrial revolution already as important and far-reaching as those of the past. It is a revolution based on information, itself the expression of human knowledge. Technological advancements now enable to process, store, disseminate, exchange, retrieve and communicate information in whatever forms it may take (oral, written or visual) unconstrained by distance, time and volume. This revolution brings new capacities to human intelligence and constitutes a resource that shifts the way of collaboration (Webster 2014). Because of the immense creativity that stems from this information revolution concerns regarding practices to better copyright protection are quite reasonable. The World Intellectual Property Organization (WIPO), at the Diplomatic Conference, December 1996, justified this fact. where two treaties[2] of paramount importance about copyright and related rights were signed.

The European Union already forms a substantial part in this revolution. An information society establishes a means to achieve so many of its overarching objectives (Jordana 2002). The information society has the potential to improve European citizens' life quality, the efficiency of social and economic organisation and to reinforce cohesion in Europe (Beniger 2009). Following this statement, the European Commission introduced its initial proposal for the 'InfoSoc Directive' on 10 December 1997, an amended proposal on 21 May 1999, the common position followed on 28 September 2000, and the 'InfoSoc' Directive was finally adopted on 22 May 2001 (Dreier and Hugenholtz 2006). Its scope was twofold: a) to reflect technological advancements through specific regulation concerning copyright and related rights; and b) shift into community law the principal international obligations that stem from the two WIPO treaties mentioned before. This scope of the directive illustrates that it was fundamental for the original Lisbon Strategy of 2000 (Copeland and Papadimitriou 2012). Accordingly, the Lisbon Strategy objective was to foster economic prosperity, jobs and growth, particularly by boosting the knowledge-based economy via enhancing the quality of European Community regulation (Dieckhoff and Gallie 2007).

What is more, the ever-growing digitisation of information has led to the information society in which more and more information is available (Rannenberg, Royer, and Deuker 2009). During the same period another issue that was considered was about the resale right regarding author's benefit from an original work of art. In particular, the right in accordance with artists should receive royalties on their works when they are resold and therefore it follows discussion below.

1.4 Directive on the resale right for the benefit of the author of an original work of art ("Resale Right Directive"), 2001/ 84/ EC 27 September 2001

The European directive 2001/84/3C constructs a framework for protection concerning authors' royalties that come from when their products are resold. The Directive was made in accordance with the provisions of the common European market of the Treaty of Rome (Garrett 1995; Wirsching 2005). The right that stems from this directive is usually known from its French name 'droit de suite'(Reddy 1994; Solow 1998; Ginsburgh 2005) which appears also in the Berne Convention for the Protection of Literary and Artistic Works (Art 14b) (Ricketson 2006).

There was a tendency for sellers of works of art to sell them in countries without author's permissions (e.g. United Kingdom) to avoid paying the royalty. Accordingly, this directive was conceived with three basic aims: i) to provide creators with an adequate and standard level of protection and eliminate the distortion in the conditions for competition

[2] WIPO Copyright Treaty (WCT) and WIPO Performers and Phonograms Treaty (WPPT)

currently existing within the single market for contemporary art; ii) to secure that authors of graphic and plastic works of art share in the economic success of their original works of art;[3] and iii) to harmonize the application of the right across the European Union. In my point of view, it was considered that putting such right into operation has a crucial impact regarding the commitment to pay for resale. The right to resale constitutes an element that should be considered by individuals. Therefore, such right is a factor which supports the production of deforms for competition in the European Union.[4]

Aligned with these aims, the directive promoted harmonization of the substantive premises with regard to the application of the resale right and particularly: a) eligibility and the duration of protection; b) the categories of works of art to which the resale right applies; c) the scope of the acts to be covered; d) the royalty rates applicable across defined price bands; e) the maximum threshold for a minimum resale price attracting the right; and e) provisions on third country nationals entitled to receive royalties (European Commission 2011a, 3).The European Commission through this Directive recognizes that authors' royalties, which demonstrate compensation of property use and usually copyrighted works (Hansmann and Santilli 2001) are crucial for the economic framework of Europe therefore should be protected. In conclusion, the examined Directive acknowledges the entitlement to royalties on resale and the following Directive addresses the issue of protection through the enforcement of intellectual property rights.

1.5 Directive on the enforcement of intellectual property rights ("IPRED"), 2004/48/EC 29 April 2004

Through the directive on the enforcement of intellectual property rights the European Commission's aim is to secure that an efficient intellectual property infrastructure allows creators and inventors in the European Union to reap appropriate returns from welfare-enhancing innovation for European citizens. Legitimate tools, such as this directive already exist in Europe to prevent the infringement of intellectual property rights. Through this Directive the European Commission is calling for a stronger cooperation among European Member States' to protect the community from intellectual property infringements.

Regarding the subject matter and the objectives of this Directive European Member States are required to implement effective, dissuasive and proportionate remedies and penalties against those engaged in counterfeiting and piracy and pursues to produce a level playing area for right holders in Europe. Harbottle argues that the main objectives for this directive are double-fold. First, objective is to provide greater consistency as between European member states regarding the relief available to injured rights owners; and the second objective is to facilitate the fight against illicit trade (Harbottle 2006).

1.6 Directive on rental right and lending right and on certain rights related to copyright in the field of intellectual property ("Rental and Lending Directive"), 2006/ 11/ EC 12 December 2006

On November 19, 1992, the European Commission took a crucial step towards additional protection afforded by holders of audio and video recordings. This Directive provides authors, performers and producers with an absolute right to prevent rental of their works, or to receive an equitable reward if a transferee later authorizes rental of the work (Rosenbloum 1995).

[3] Recital (3) of the Directive
[4] Recital (9) of the Directive

This Directive stems from the European Commission's Green Paper on Copyright and the Challenge of Technology 1998 (European Commission 1988). The original proposal for a directive was released by the Commission on 5 December 1990 and was followed by a revised proposal on 29 April 1992. Scholars claim that the Directive goes further than the Green Paper on Copyright and the Challenge of Technology with regard to the extension of lending rights and the proposed rental rights to authors and performers (Eechoud 2009). To Nérisson it was a significant European legal tool that deals with actual authors' rights and goes beyond the right to make available protected works and their content. She also claims that it is an important source for explicit justification in the applicable European copyright regime (Nérisson 2014). In 2006, another crucial step was made for the construction of the intellectual property regime in Europe through revision of this Directive. This Directive supports the harmonization of certain copyrights and neighboring rights.

1.7 Directive on the legal protection of computer programs ('Software Directive'), 2009/ 24/ EC 23 April 2009

With the publication of this Directive, also called as 'Software Directive', it is argued that the European Commission transcended the United States and Japan, two global actors with great success in the area of computer technology, in the specificity with which significant problems of legal protection for computer software are directed (Palmer and Vinje 1992). The implementation of this Directive completed a three-year process that engaged intense lobbying attempts between the European Commission and the European Parliament which both establish significant institutions for policies that should be introduced in Europe (Crouch 2000; Olsen 2002).

The copyright protection provided from this Directive applies to: a) the expression in any form of a computer program. Ideas and principles which underlie a computer program or any elements thereof are not included in this protection, b) a computer program when it is original in the sense that it is the author's own intellectual creation and c) computer programs created before 1 January 1993 (European Council 1993).

The Green Paper on Copyright and the Challenge of Technology assessed European copyright law and elaborated on the possibility of *sui generis* protection (European Commission 1988, 175). A great part of the Green Paper refers to the protection of computer software. Specifically, this Green Paper proposed that copyright law protects computer software. It also described alternative approaches for several copyright issues (p. 179). This Directive was officially adopted on 14th of May 1991.

Samuelson et al claim that: '[…] competition and innovation in the software industry in Europe will be seriously undermined if the Court of Justice of the European Union in SAS Institute, Inc. v. World Programming Ltd. holds the copyright protection for computer programs extends to the functional behaviour of computer programs, to programming languages, and to data forms and data interface essential for achieving interoperability' (Samuelson, Vinje, and Cornish 2011, 1). It is necessary to explain this case further in order to understand the issues for my argument.

The dispute between SAS Institute Inc (SAS) and World Programming Ltd (WPL) was first heard by the High Court in July 2010. Mr Justice Arnold, considering that the case turned on several significant issues of interpretation of Articles 1(2) and 5(3) of the 'Software Directive' and Article 2(a) of the 'Information Society Directive', referred a few questions to the Court of Justice of the European Union (CJEU). The case passed on the High Court in January 2013 before being appealed to the Court of Appeal. The Court of Appeal dismissed

SAS Institute Inc's appeal from the High Court confirming that the outfit and the whole infrastructure of a computer program cannot be protected. By creating a software product to perform application programs written in SAS's language, World Programming Limited did not infringe SAS's copyright (Silverman 2014).

A related topic regarding the SAS Inc's appeal is the distinction between an idea and the expression of an idea. LJ Lewison stated at paragraph 60 that 'what is critical is not the intellectual creation but the expression of the intellectual creation' (The Hon Mr Justice Arnold 2010) later clarifying that the functionality of a computer program establishes an idea and is therefore not protectable. Moreover, the Court of Appeal found that it was necessary to consider the policy underlying both the 'Software Directive' and the 'Information Society Directive', which is identical. It would be contrary to that policy if SAS Institute could achieve copyright protection for the functionality of its program indirectly via its manual, which simply explains that functionality.

The Court of Appeal found that it was possible for WPL to be the 'customer' entering the license agreement, despite being a company. WPL was therefore entitled to use the Learning Edition, and there was no restriction on the number of employees whom WPL might authorize to observe, study and test the program. However, companies may unpick their competitors' programs to create their own version. Website creators are advised to consider other intellectual property rights to protect their creations such as branding, logos, graphics or features protected by design rights. Hence, they will be able to invoke trade mark, passing off, copyright or design rights to obtain some additional protection.

The Directive addresses special measures in the context of copyright protection. More specifically, special protection measures will be taken against a person committing any of the acts listed below: any act of putting into circulation a copy of a computer program knowing, or having reason to believe, that it is a pirated copy; any possession for commercial purposes of a copy of a computer program knowing, or having reason to believe, that it is a pirated copy; any act of putting into circulation or the possession for commercial purposes of any means with the intended purpose of facilitating the unauthorised removal or circumvention of any technical device which may have been applied to protect a computer program (European Parliament and European Council 2009). In conclusion, the overarching objective of the Directive is to harmonize European member-states' regulations concerning the computer programs protection in order to create a legal environment which can afford a degree of security against unauthorized reproduction of such programs.(Rodríguez 2006) Thus, the Directive provides additional copyright protection in the digital age and clarify that acts regarding production, reproduction or resale of computer programs should be considered in a more efficient manner.

1.8 Directive on the term of protection of copyright and certain related rights amending the previous 2006 Directive ('Term Directive'), 2011/ 77/ EC 27 September 2011

The discussion and social concerns in Europe about the protection of copyright and certain related rights was introduced more than a decade earlier through the Directive 93/98/EEC, which aimed to harmonize the term of protection of copyright and certain related rights. What is more, the Directive examined above has been repealed and replaced by the Directive 2006/116/EC, without prejudice to the obligations of the European Member States relating to the time-limits for transposition into local law of the Directives, and their application (Le Galès 1998).

In 2006, the Directive 2006/116/EC was introduced in order to establish protection for previously unpublished works, for critical and scientific publications and for photographic works. The income from copyright remuneration is important for authors, performers and producers (called 'creators') as they often do not have other regular salaried income. To sum up, the Directive 2011/ 77/ EC demonstrates a full revised version of the Directive 93/ 98/ EEC and it also contains accompanying measures, which provide substantial assistance to 'creators'. The 'use it or lose it' clauses, which now has to be included in the contracts linking 'creators' to their record companies, grant permission to get their rights back if the record producer does not market the sound recording during the extended period. In accordance with this provision, creators will be able to either find another record producer willing to sell their work or do it themselves, something that is feasible easily via the Internet.

1.9 Directive on certain permitted uses of orphan works ('Orphan Works Directive'), 2012/ 28/ EU 25 October 2012

The Directive 2012/28/EU sets out common regulations on the digitization and online display of so-called orphan works. Orphan works are works like books, newspaper and magazine articles and films that are still protected by copyright but whose authors or other proprietors are not known or cannot be located or contacted to obtain copyright permissions (Ringnalda 2011). Hence, end-users are not able to obtain necessary authorization to use such creations without author's consent or without the risk of infringement that can be costly and time-consuming (Vuopala 2010). Orphan works are part of the collections held by European libraries that might remain untouched without common rules to make their digitization and online display legally possible.

Rosati argues that orphan works problem has become specifically dramatic in terms of large-scale digitized projects such as the Google Books Library, also known as Google Books. Accordingly, she claims that discussion on whether Europe should deal with the orphan works issue became intense. In 2009 the European Commission released its communication on Copyright in the Knowledge Economy that represented a follow-up to the public consultation launched via the 2008 Green Paper. Through the blueprint of the Directive, 2011, the European Commission clarified its intention to release a legislative proposal regarding a directive on certain permitted uses of orphan works (European Commission 2011b). Additionally, she points out that the European Commission debated possible options to support a European-wide solution to the orphan works issue. These options comprised the adoption of a legally binding tool on the clearance and mutual recognition of orphan works, a specific exception to be added to the 'InfoSoc Directive' (section 1.3) or guidance on cross-border mutual recognition of orphan works (European Commission 2009, 6). To sum up, this Directive was announced from the European Commission in 2012 to offer additional support in terms of copyright licensing in Europe.

Rosati argues that this Directive intends to provide a legal framework to facilitate the digitization and dissemination of orphan works. The adoption of this Directive was justified considering insufficient action at the sole level of Member States and was meant to enhance European competitiveness, while contributing also to the realization of important actions of the Digital Agenda for Europe (Rosati 2013). She also argues that none of these underlying objectives has been fully achieved by the Directive, which contains numerous notions with not so clear meaning. Hence, Member States have been left with the difficult task of adopting implementing legislations. These have the potential to differ greatly at national level. To sum

up, there are many blanks left by the European legislation. It follows below examination of the Directive that shows European Commission's intention to fulfill such 'gaps.

1.10 Directive on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market ('CRM Directive'), 2014/ 26/ EC 26 February 2014

This Directive forms a substantial part for the European Commissions' 'Digital Agenda for Europe' and the 'Europe 2020'flagship initiative.[5] The Directive also constitutes a set of measures and its scope is to improve the licencing framework and the accessibility to digital material. The central aim of the Directive is to secure that Collective Management Organisations (CMOs) act in the best interest of the proprietors they represent. More importantly, its focal policy objectives are to modernise and better the standards of governance, financial management and transparency of the European CMOs by securing that proprietors are able to contribute in the decision-making procedure and receive accurate and timely royalty payments (Ficsor 2002). Other objectives are to support a level playing area for the multi-territorial licensing of online music and to produce innovative and active cross-border licensing frameworks to encourage further support with regard to legal online music services (Gervais 2010). In conclusion, the Directive establishes some crucial protections for proprietors, comprising those who are not members of CMOs and it also provides a framework for best practice in licensing, comprising obligations on licensees around data provision.

This directive provides the appropriate binding legal tool on collective management of copyright and related rights in Europe with numerous provisions to be appreciated (Drexl et al. 2013). Max Planck institute has also supported this Directive. Hence, it constitutes the European Commission's efforts create a level playing field among collecting societies by introducing governance and transparency standards to European societies. The Institute also appreciates the Commission's attempts to foster the grant of multi-territorial licences for online uses of musical works and, more specifically, the centralised grant of such licences for the repertoires/ performances of multiple proprietors and collecting societies (so-called one-stop shop).

1.11 Imperative distinction

The following discussion will be clearer if a distinction between regulations and directives is kept in view. A regulation is a binding legislative act. It must be applied in its entirety across the EU (Eberhard-Harribey 2006). On the other hand, a Directive is a legislative act that sets out a goal that all EU countries must achieve. However, it is up to the individual countries to devise their own laws on how to reach these goals. For instance, the European Directive for consumer rights strengthens consumers' rights across Europe by eliminating hidden charges and costs on the internet, and extending the period under which consumers can withdraw from a sales contract (Apostolache 2015). Therefore, in the following discussion a brief overview of the regulations 'Horizon 2020' is given.

It should be noted that the European Commission and the European Member States are mandated by regulations that lay down application framework for the European Structural and Investment Funds (ESIF), 'Horizon 2020', and other programs directly managed by the Commission in the areas of research, innovation and competitiveness. Hence, 'Horizon 2020' forms substantial part for the European regulations.

[5] The associated program with 'Europe 2020' flagship initiative, 'Horizon 2020' which introduced the concept of open access in the European context, it will be considered in the following section.

This program introduces open access as a core element of European research policy with long-term perspectives for information resources. Specifically, this program focuses on research outcomes that lead to innovation and thus it is examined to highlight that research determines an example of whether the European information society can facilitate new thinking.

2. The 'Horizon 2020' program

2.1 The pathways of open access

In this section, there is discussion about open access and examination of its characteristics when applied. Guedon argues that open access as a concept appeared as a response to the rapid growing prices of scholarly and scientific journals. Mainly, librarians were concerned about the high prices of journals while there was restricted access due to constrained economic means. In a gradual way, such concern has evolved, and issues related to access have been characterized from issues associated with costs. Additionally, Guedon also argues that open access has been focusing on articles, beside journals because of a few reasons: i) scientists as readers tend to pay more attention to articles; ii) online publishing maintains the journal titles mainly for branding reasons; iii) the very dynamics of the open access practice have also contributed to offer greater prominence to the articles as a unit.

More specifically, open access became a movement after a meeting in Budapest in December 2001 organized by the Information Program of the Open Society Institute (Chan et al. 2002). That meeting witnessed a vigorous consideration about definitions, tactics, and practices, and out of this discussion emerged two approaches. First, existing journals find a way to transform themselves into open access publications, or open access journals are created. Second, authors and/or institutions 'self-archive' published peer review articles or a combination that then becomes the equivalent of published, peer-reviewed articles.

The first practice amounts to a reform of the existing publication regime. It fundamentally relies on journals as its basic unit, and it simply aims at converting or creating the largest possible number of open access journals. BioMed Central, a commercial operation, has played an important pioneer role in this context. More recently, the nonprofit Public Library of Science (PloS) has joined it (Gentleman et al. 2004). This practice obviously threatens the 'reader-pays' business plan and therefore immediately faces the issue of financial viability, with the result that spirited discussions have been generated, largely centered on the viability of the 'author pays' model used by BioMed Central and the PloS (Hernández-Borges et al. 2006; Schroter and Tite 2006). In other parts of the world, several research councils have also begun transforming their journals into open access publications (Björk et al. 2010). In such cases, the issue of financial viability simply rests on the will of governments to support scientific publishing.

However, what is at stake in all countries is whether to integrate the publication costs within the research costs, given that the latter are largely supported by public resources. The 'self-archiving' method appears much more complicated and subtle when approached conceptually. It both relies on journals and rests on the preeminence of the article as fundamental unit. From this perspective, journals matter only to differentiate between peer reviewed articles and non-peer-reviewed publications and to provide symbolic value. Therefore, journals contribute to the impact of individual articles by their reputation among scholars, a fact that is associated with the notion of 'impact factor' (Xia and Sun 2007; Xia 2008).

In summary, 'self-archiving' is a practice that has been designed by researchers and for researchers, with little interest for any other actor involved in scientific publishing. It simply aims at improving the research impact of established scientists and little else. Additionally, it is a tough-minded vision, narrowly focused on scientific communication. Supporters of this vision are essentially interested in only one thing: extracting every ounce of impact a published article may hope to claim (Antelman 2004). It follows discussion about the 'Horizon 2020' program which introduced open access to research outcomes to grow information exchange towards knowledge,

2.2 Open access in 'Horizon 2020': importance, benefits and prospects

In February 2007, the Commission in Brussels hosted a crucial conference on the future of open access in Europe. More importantly, through that meeting the European Commission encouraged open access whilst not mandating it de facto across Europe. The European Regulation No 1291/ 2013 establishes the 'Horizon 2020' program which is an attempt to support open access practice. It determines the framework for research and innovation from 2014 to 2020. Specifically, paragraph 28 of this regulation, to grow the circulation and exploitation of knowledge says first that open access to scientific publications should be secured, and secondly that open access to research data resulting from publicly funded research under Horizon 2020 should be promoted, considering limitations for privacy, national security and intellectual property rights.[6]

The Guidelines on Open Access to Scientific Publications and Research Data in 'Horizon 2020' also emphasize open access. These guidelines review and clarify the regulations on open access covering beneficiaries in projects funded or co-funded in the context of 'Horizon 2020' (European Commission 2016). These guidelines are significant as they highlight the article 29 of 'Horizon 2020' that sets out detailed legal requirements on open access to scientific publications (Granieri and Renda 2012).

It is claimed that this program will bring breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market (Gaspar et al. 2012).'Horizon 2020' is the financial instrument implementing the Innovation Union, a 'Europe 2020' flagship initiative aimed at securing Europe's global competitiveness (Granieri and Renda 2012). Seen as a means to drive economic growth and create jobs, 'Horizon 2020' has the political backing of Europe's leaders and the members of the European Parliament. The European Parliament and the European Council agreed that research is an investment in our future and so put it at the heart of Europe's blueprint for smart, sustainable and inclusive growth and jobs (Kuhlmann and Arie 2014). By coupling research and innovation, 'Horizon 2020' is helping to achieve by highlighting the concepts of excellent science, industrial leadership and tackling societal challenges. The objective is to secure that Europe generates world-class science, removes obstacles to innovation and offers incentives to public and private sectors to cooperate beneficially for innovation.

Through the 'Horizon 2020' program the European Commission demonstrates that open access can be seen as an effective response of intellectual property protection in Europe in the digital age. Arguably, the European Commission views open access not as an end in itself but as an instrument to accommodate and improve the dissemination of information in the European Research Area (ERA) and beyond (Breschi and Cusmano 2004). Moreover, the European Commission recognizes that there are several ways of arriving at open access, since different European countries and stakeholders are in different situations and have different

[6] These two objectives are the paragraphs of article 18 of the European Regulation No 1291/ 2013

necessities. Hence, it supports both main routes to open access, i.e. the 'Green' and the 'Gold' routes.

Rodrigues argues that recently open access to publicly funded research has been attracting support steadily from policy makers and funders across Europe, both at national level and within the European Union context (Rodrigues 2014). Another important institution for the European Commission's intention towards open access is the European Research Council (ERC). The ERC released a statement that supports open access practice (European Research Council 2006). This statement was also followed by guidelines for researchers funded by the ERC. These guidelines illustrate that all peer-reviewed publications funded from ERC should be made openly accessible shortly after their publication (European Research Council 2012). The support of institutions and scholars is a significant factor in determining the terms of open access practices. Thus, in the following section there is discussion about supporting statements in Europe about open access.

3. Advocacy on open access and the growth of OARs: the European aspect

The institutional repository is argued to be a digital-asset management framework that is growing rapidly as a key element of current discussion about open access and the shift of the scholarly communication process (Cullen and Chawner 2011). Several advocates of open access also argue that the open access repository constitutes the most cost-effective and immediate channel to support access regarding publicly funded research outcomes (Harnad 2005, 2012). Another definition is that an open access repository is online archive of scholarly material created by the members of a defined institution. Thus, the institution also determines the content of the repository and the associated policy about gathering information (Johnson 2002; Jantz and Wilson 2008).

The following discussion helps me to determine whether the Directives are in practice. In this context, statements that support open access should be considered to highlight its importance for the European Union. Therefore, an examination of selected open access initiatives is undertaken.

3.1 The Scientific Council of the European Research Council (ERC): open access mandate (December, 2007)

Scholars claim that towards the end of the 20th century, expectations about the added value of and logic for the European science policy are considered. First, the perception of the European added value shifted to incorporate competition. More specifically, in 2003, an expert group called for competition regarding the excellence in research to become a significant part of a new, long-term definition of the European added value (Nedeva and Stampfer 2012). A year later, this call was answered in official EC documents as 'the added value which comes from competition at EU level' (European Commission 2004). Policy attention shifted from mainly coordinating national outcomes to grow a broader European science base (Luukkonen 2014).

Second, Europe had to recognize that its concerns regarding science went beyond applications. By the late 1990s, it was recognized that European countries were lagging the United States and Japan both in science and its applications (Rosenberg 2002). These two changes of policy assumptions and logics made possible the establishment of the European Research Council (ERC) in 2007, the first dedicated research-funding agency to support investigator-driven research, with a focus on excellence.

The Scientific Council of ERC stresses the fundamental significance of peer-reviewed journals in securing the verification and distribution of high-quality scientific research and in

guiding appropriate allocation of research funds (European Research Council 2006). Policies towards access to scientific research must guarantee the ability of the system to continue to deliver high-quality verification services. While the verification quality of the scientific publication system is not in doubt, the high prices of some journals raise significant worries concerning the ability of the system to deliver wide access and therefore efficient dissemination of research results, with the resulting risk of stifling further scientific progress.

These considerations lead the ERC Scientific Council to highlight the attractiveness of policies mandating the public availability of research results – in OARs – reasonably soon after publication. Nevertheless, general open-access policies are not trivial to implement because: i) the speed of 'obsolescence' of knowledge varies across disciplines; and ii) so does the availability of open access repositories. Additionally, coordination between research funders is highly desirable (Luukkonen 2012). Given this, it is the firm intention of the ERC Scientific Council to issue specific guidelines for the mandatory deposit in open access repositories of research results obtained thanks to ERC grants, as soon as pertinent repositories become operational (Mens 2009). To sum up, the ERC Scientific Council hopes that research funders across Europe will join forces in establishing common open-access rules and in building European open access repositories that will help make these rules operational.

3.2 Modernization of European copyright regime: The European Bureau of Library, Information and Documentation Associations; (EBLIDA) and the International Federation of Library Associations and Institutions' (IFLA) statement

Another significant statement is the comment on behalf of EBLIDA and IFLA on the European Commission's communication released on 9 December 2015 (European Commission 2015). Accordingly, Europe anticipates to broaden access to online content and to modernise European copyright regime in a long-term perspective. Education, research and the European cultural diversity are important in terms of creative economy and needs of Europe thus both should be supported by an up to date copyright regime that is able to track continuous technological advancements and provide cross-border access to library and online content (EBLIDA and IFLA 2015).

Jukka Relander, President of EBLIDA, declared that: "[B]ecause libraries and archives in Europe do not have uniform exceptions and limitations available to them in their member states, they cannot effectively share information across Europe's borders. Citizens in the 28 EU member states have different and unequal access to information. 21st century libraries and archives need legal certainty to ensure that they can achieve their public service missions of providing free access to information to help build an innovative and inclusive society. EBLIDA agrees with the European Commission that widening access to content across Europe is necessary and welcomes the opportunity to participate in consultations that consider exceptions to copyright rules for an innovative and inclusive society.

Conclusion

Recently, 2016, the European Union officials clarified that Europe should be as attractive as possible for researchers and start-ups to locate here and for companies to invest. The relevant decision mandates open access for all publicly funded research by 2020 and stems from a meeting of European ministers at the Competitive Council (Enserink 2016). The objective of the open access policy is to optimize the impact of publicly-funded scientific research. Facilitating access to results encourages the re-use of research output. This is essential for Europe's ability to enhance its economic performance and improve the capacity to compete through knowledge. Open access has the potentials to provide the way to reach

knowledge. Results of publicly-funded research can therefore be disseminated more broadly to the benefit of researchers, innovative industry and citizens. Open access could also increase the visibility of European research. In conclusion, these statements show the importance of gradual integration of open access into national policies concerning copyright law. The time for discussions about open access can be also considered as 'expired'. It seems that the European Commission pursues to achieve it in practice.

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