



Digitization and cultural heritage: management and preservation of intellectual expression in the digital era.

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Abstract

The present dissertation studies the uses and benefits of the digitization for the purposes of preservation and management of cultural heritage. The digitization process offers various and limitless possibilities for the preservation and dissemination of cultural heritage. In accordance with the new challenges and demands of the modern Information Society, it creates new and innovative ways of mass access of the academic society and the wider public to cultural content and material, without the physical boundaries and obstacles of the conventional means of access. Although it is undeniable that digitization contributes significantly to the free circulation of ideas and information and plays a vital role in the pursued construction of a globalized society of knowledge, the implications and legal issues that it raises are rather considerable as well. The existing legislation deals with issues of classification of cultural works as public domain or copyright protected. However, it is apparent that despite this legislation, the boundaries between the two statuses can often be the object of disagreement and speculation, whereas the rights of the public for access to knowledge and the economic and moral rights of the right holders of the works in question often come into conflict. Nevertheless, the harmonization of the rights of these two stakeholders is vital, since the use of New Media and technologies (part of which is the use of digitized material) is the key principal for a sustainable and successful cultural industry.

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Introduction

Nowadays the intellectual society and identity of the EU is characterized by the free circulation of ideas, notions, innovations and the equal accessibility to knowledge and information. The accessibility to the cultural heritage of the EU is the key to a globalized knowledge society and should be the main objective of European Strategic Plans regarding the cultural sector.

Modern technologies are a strong ally to this venture and create new ways that enable mass access to cultural heritage. The process of digitization is the most distinctive “tool” that ensures not only the preservation of various types of intellectual works by cultural organizations and institutions but also the accessibility of these works by the academic community and the public.

By the term “digitization” we mean the procedure through which, an object (more specifically an image, a sound, a document etc) is converted into a digital format through an electronic device, such as a scanner or a camera. This procedure enables the preservation of intellectual works that are in danger of destruction due to their material (e.g. rare historical manuscripts that are very fragile due to their age and their sensitive material). It also allows the accessibility of such works by a large number of people that would not otherwise have the chance to visit the physical location of the digitized object (e.g. a digitized historical monument can be admired and studied by many people, who are not able to visit the actual historical site). Lastly digitization maintains and preserves a cultural work for the future generations (e.g. a very old and rare film can be maintained in digital form for more years than its original analogue copy would). Most importantly, the procedure of digitization facilitates the access and dissemination to the public of intellectual works that due to their nature or format cannot be accessed otherwise. This is also the case with orphan¹ and out-of-commerce

¹ The term “orphan works” is used to define all these intellectual works, whose right holders have either not been identified or even if identified not been located.

works.² Although the process of digitization has brought about important developments and improvements in the area of the preservation and dissemination of cultural heritage, it has also raised speculations of both legal and practical nature. This paper will deal with the notion of digitization and will discuss the most important aspects of it, focusing on the general provisions and legal frameworks that rule it.

The first chapter will deal with the notion of digitization as it is expressed in both practical and legal terms. There will be a short and indicative reference to the procedure of digitization as well as a discussion about the relevant European legal framework.

The second chapter will focus on the subject of both orphan and out-of-commerce works, providing a commentary on the two legal bodies that deal with these two categories of works (the Directive 2012/28/EE Directive and the Memorandum of Understanding for Out-of-Commerce works respectively) and offering details on the copyright issues that arise from their use by cultural organizations and institutions.

The third chapter will examine the importance of the online accessibility of digitized material and will also provide a description of two distinctive examples of portals and registries that enable the online accessibility, the ARROW database and the digital library Europeana. Details concerning their function and their use nowadays will be discussed alongside with the importance of metadata for the better recording and preservation of the digitized material.

The fourth chapter will be structured in a more theoretical manner and will make short references to some notable cultural institutions that have incorporated the use of digitization in their infrastructures. The list of references is by no means exhaustive and it is rather an indicative example of the uses of digitization in everyday life.

² With the term "out-of-commerce works" we define all these intellectual works that are no longer available through the typical commercial channels (e.g. print forms) because their right holders have chosen not to exploit them commercially any more.

1.1. The notion of digitization

I. Cultural heritage and digitization

Culture is a vital element of every community, since the ancient years to nowadays. People used to express themselves both in tangible and intangible ways, creating a net of ideas, beliefs, notions, thoughts and of course works of art, monuments, architectural pieces etc. Intellectual creation and its expressions are really valuable for the humankind, as they do not only chronicle the history and evolution of humanity but also offer an insight into the most mysterious element of the humankind: their imagination.

Culture is expressed in various fields of life and all these expressions constitute the cultural heritage of humanity, the importance of which is undeniable. Unfortunately, cultural heritage all over the world faces threats of extinction due to wars, fierce weather conditions, neglect and general deterioration.³ Furthermore, the inability of many societies to care for and preserve their cultural heritage lies in their ignorance regarding its value or their incapacity to provide the necessary means for its preservation. Even in cases, when the State wishes to take care of its cultural heritage and provide the suitable infrastructures, there are many challenges that have to be overcome.

Another significant trait of cultural heritage is its variety and diversity, both in its tangible and intangible expressions, a feature that characterizes Europe in particular. This diversity actually constitutes the background for the development of creativity and growth in the cultural industry and may lead to investments and creative entrepreneurships. Moreover, the access to the knowledge and information that it carries may ensure the creation of a globalized knowledge community, which will provide equal opportunities for growth and progress. For this goal to be achieved, it must be ensured that the access to this cultural heritage is unhindered and possible for

³ Kalay, Kvan and Affleck, 2008, pp.1-2.

everyone. It is also vital that all expressions of cultural heritage are well-preserved for future generations and do not face the threat of distortion.

In order to enable access to cultural heritage and knowledge in general nowadays, the need to utilize modern means and media was more urgent than ever. In this particular context and under the modern society's demands many innovations were generated, in order to satisfy the electronic era's needs and requirements. One of these innovations was the procedure of digitization that followed the technological outburst of our era. This innovation created not only new facts but also new needs and demands.

A rather general and indicative description of the digitization process would be that by the term *digitization* we define the technological procedure, through which analogue data and information are converted into digital forms. With the term *analogue data* we indicate data that are represented in physical ways and are stored in physical media (e.g. the data stored in the magnetic tape of a VCR tape). With the help of certain electronic devices (usually scanners, although this depends on the nature and material of the actual object that is being digitized) the analogue data are converted into digital data and are stored in digital networks, in order to be processed and preserved.⁴

Of course, it is apparent that this procedure varies according to the object that is being digitized every time. Since digitization has infiltrated various sectors of modern society, like enterprises, educational organizations, public carriers and services, art, science etc, the procedure and the means, used to accomplish it, as well as the way that the digital data are stored, processed and used, depend on the source subject and the purpose for its digitization.

As far as cultural heritage is concerned, organizations and institutions that are active in the cultural sector have issued specific guidelines and instructions regarding the digitization procedure of cultural works that cover the whole scope of it.⁵ Such an

4 Klass and Rupp, 2014,p.949.

5 Of course these guidelines also have differences, due to the different nature and material of cultural works.

example are the *“Guidelines for Digitization projects for collections and holdings in the public domain, particularly those held by libraries and archives”* that were drafted on behalf of IFLA (International Federation of Library Associations and Institutions) and ICA (International Council of Archives) in March 2002 and were later published by UNESCO.⁶ Another example are the *“Guidelines for Planning the Digitization of Rare Book and Manuscript Collections”* issued by IFLA in 2014⁷. Both guidelines provide an overview of the digitization process including main scope and subject matter, desired outcomes, description of the technical procedure and even examination of the legal background that rules and defines the copyright issues that arise from the process.

II. Aspects of digitization

Digitization is a demanding procedure in technical, financial and even legal terms. It involves contribution and consultation from experts in all those fields. Despite the demands though, it offers plenty of privileges to the cultural sector.

The main benefit of digitization is the preservation of cultural heritage against deterioration because of time or adverse conditions. By the term “preservation of cultural heritage” we mean all the necessary actions taken, in order to ensure that specific artifacts or documents are not distorted or deteriorated through time, but they are maintained for future generations. The preservation notion also includes the long-term accessibility to information regarding the cultural work in question, in order for it to be properly recorded.⁸

More specifically, the importance of the digital preservation of cultural artifacts lies in the advantage that it has compared to the perishable nature of the conventional materials, in which cultural artifacts are fixed to. For example, it is only expected that

For example the procedure and devices used to digitize books and manuscripts may be different from the ones used to digitize sculptures or other three-dimension cultural objects.

6 IFLA, *Guidelines for Digitization projects for collections and holdings in the public domain, particularly those held by libraries and archives*, 2016.

7 IFLA, *Guidelines for Planning the Digitization of Rare Books and Manuscript Collections*, 2016.

8 Klass and Rupp, 2014, p.952.

despite the best efforts, manuscripts that date too many years ago, cannot be preserved in perpetuity and that it is natural that they will succumb to time and environmental decay. Furthermore, it is easier to create more than one copy for each digitized work, thus ensuring its sustainability.⁹

Reviewing the benefits of digitization in a wider context, it is apparent that apart from the benefits for the cultural sector in particular, the development of new market products, related to the cultural sector may also be enabled. Since digitization requires specific means and media as well as new networks that host the digitized material, the motive for the creation of new technology businesses and for the development of suitable applications is very strong. Moreover, the disposal of digitized material in a larger scale than the conventional display would allow, may boost the tourism and marketing industry and thus enhance the economy of states.¹⁰

However, despite the obvious advantages that the digitization of cultural heritage offers, it is inevitable that certain challenges arise. Foremost, digitization presupposes suitable technological infrastructures, because once digitized material is stored does not mean that it remains stable for long periods. On the contrary it demands preservation activities and upgrade of the current software that is used for its management, in order to be compatible with the new technological innovations and standards. These maintenance procedures also require that the cultural institutions that undertake digitization projects have a financial background that is sufficient to support them.¹¹

It is undisputed that digitization constitutes an integral part of the Information Society of Europe, as it guarantees the preservation of its cultural identity. Large-scale digitization projects are included in Europe's digital agenda for the next years, as key aspects of the Europe 2020 Strategy. Digitization is a complex process that involves various sectors. As a result it is essential that all elements concerning it are examined.

⁹ See *supra*, note 8.

¹⁰ Klass and Rupp, 2014, pp.951-952.

¹¹ Klass and Rupp, 2014, p.953.

A crucial aspect of digitization is of course the legal challenges it presents and more specifically the complications that arise regarding Copyright Law.

1.2. Copyright issues regarding digitized material

I. General legal issues

The main problem regarding the digitization of cultural works is that according to Intellectual Property Rights, only the right holder of an intellectual work may authorize the use and reproduction of his works. This is not always easy, as some works may have more than one right holder that have to be located and give their permission for the use of their work. This is the case with the databases. The database format holds the *sui generis* right, which dictates that the contents of a database are protected and cannot be used in the whole or even in substantial parts without authorization of the database's right holder. It is also very usual that databases include contents from different right holders, all of which have the exclusive right of authorizing or prohibiting the use of their works. This provision also defines that even if the database contains works, whose copyright protection has been terminated, as long as they constitute part of a database are still part of public domain but they cannot be accessed without the consent of the different right holders.¹²

Another example of a work with multiple right holders is the case of audiovisual works, the final outcome of which is achieved by the contribution of various people (the script writer, the actors, the music composer, the director etc.) Although the director of an audiovisual work is considered to be its author and thus the right holder of the final version, the separate parts of the work cannot be exploited without the permission of the right holders (for example the score composed for a particular

¹² Klass and Rupp, 2014, p.965.

audiovisual work cannot be used for a different work without the composer's permission).

It is obvious that the existence of multiple right holders causes many problems and hinders possible digitization projects. It can be rather difficult to locate all the involved right holders, especially if a work is old and the right holders have deceased, thus transferring their economic rights to their heirs or even other third parties. Lastly, there is also a possibility that the right holders of a work cannot be identified or even if identified they cannot be located. This is the case with orphan works, which will be discussed in a following chapter.

The situation is more simple when a beneficiary institution wants to digitize works that belong to the public domain. As public domain, we define works that are not protected by Intellectual Property Rights at all because their protection status was never acclaimed or has now expired.¹³ The classification of works as "public domain" offers many benefits to the interested beneficiaries that want to make use of them and enables the digitization initiatives, because it is not necessary to conduct a diligent search for the identification and location of the works' right holders. This provision defines that the works in question cannot only be used by beneficiary cultural institutions but they can also be re-arranged, restructured and be creatively altered.¹⁴

Another legal problem is that digitized material obtains a certain degree of originality after its fixation in digital form and thus it is eligible for copyright protection. It is apparent that these cases cannot concern works that lack the "*independent originality*" element, but concern works that were digitally depicted with a new creative perception.¹⁵

13 Klass and Rupp, 2014, pp.963-964.

14 Klass and Rupp, 2014, p.963.

15 For example, a book converted into digital form undergoes no alterations. The only element of it that changes is its tangible format. On the contrary, a photograph (especially in three-dimension depictions) converted into digital form, may vary from the original artifact, since the angle and focus that will be chosen for it, requires a certain amount of creativity. In legal terms, the element of creativity may indicate the eligibility of the digitized work in question for copyright protection under related or exclusive rights (Klass and Rupp, 2014, p.964).

The legal term that describes the aforementioned change in the copyright status of a digitized work, is cited as “reprivatisation” and it must be noted that it may accrue not only from the digitization of cultural content but also from intellectual works that are being published for the first time since their creation. The free access to and use of such works may be limited to users for a certain period of time, due to the works’ newly acclaimed copyright protection status. However, the work may still be made available to the public in digital form through internet channels.¹⁶

Furthermore, since the whole notion of digitization and its importance lies in the fact that it allows access to intellectual works that would be hard to access otherwise, it is obvious that once this trait is eliminated, the digitized works present the same problems that conventional cultural works have. So, when certain businesses control the access to digitized works through technological measures and barriers, many users may be excluded from their use, undermining the purpose of the digitization of these works in the first place. This problem is partly solved, if the users can still have access to the information that these works bear via alternative channels. But if this is not the case, then the access to digitized works is hindered, and the public domain notion is undermined.¹⁷

II. Digitization of copyrighted works

Cultural institutions and organizations such as libraries, museums, archives etc usually own collections that are no longer under copyright protection. A more complex possibility is that their collections contain works that are indeed under copyright protection but their right holders cannot be identified or located.¹⁸ Therefore the digitization of such collections proves to be a real challenge, as the fact that cultural

¹⁶ See supra, note 13.

¹⁷ Klass and Rupp, 2014, pp.965-966.

¹⁸ Such works are classified as “orphans”, according to article 2(1) of the 2012/28/EU Directive.

institutions host certain works does not necessarily mean that they own them or that they are their right holders.¹⁹

More specifically, the copyrights that rule cases of digitization are the so-called *digital rights* that occurred due to the need of delineating and classifying the use of digitized material in the digital era. They can be found in the 2001/29/EC Information Society Directive classified as *economic rights* and they were introduced, in order to supplement the existing legislation in the copyright field, as the introduction of new technologies and innovations (such as digitization) created new data in the copyright sector. According to the directive the use of digitized material must always be according to and in respect of three specific rights. These rights are the rights of *reproduction, distribution and communication of a work to the public*.²⁰

With the term *reproduction* we mean copies of intellectual works in any format (actual, physical copies or digital ones). The reproduction right, as defined in article 2 of the directive, reads that any kind of reproduction of an intellectual work can be authorized only by its right holder, who can decide to agree with it or prohibit it in any form and for the whole or for specific parts of his work. The digitization process is interpreted as exploitation in the copyright context, even if it aims at preserving the collection of a cultural institution for future use. As such it can be ruled (permitted or prohibited) exclusively by the right holder of the works.²¹

Taking the aforementioned problems into consideration, the legislator considered that it would be essential to introduce provisions that would allow publicly accessible cultural institutions to use copyrighted works. Thus there are certain exceptions in the directive that allow institutions to digitize their collections, if they are interested in preservation projects. Such provisions have infiltrated national legislations and their source can be traced in article 5(2)(c) of the directive²², which reads that Member States may provide an exception to the reproduction right, for

19 Klass and Rupp, 2014,p.966.

20 Articles 2,4 and 3 respectively of the 2001/29/EC Directive.

21 Klass and Rupp, 2014, pp.966-967.

22 The 2001/29/EC Directive.

“publicly accessible libraries, educational establishments, museums or archives” if it is deemed that economic exploitation, deriving from the use of the digitized material, is not pursued. However, although this is a very important provision that ensures some level of flexibility for cultural institutions, it does not apply in every case, rather under very specific occasions. Furthermore, each Member State is free to adopt this provision into its national legislation in the way and in the percentage it wishes to. So, not all institutions have the same amount of flexibility regarding their digitization projects. They may though have a common point of reference.²³

As far as private entities are concerned, copyright legislation does not include an exception for the reproduction right, since the clause of “no economic exploitation” cannot be invoked in this case. The same applies in cases, when public cultural institutions wish to ensure private funding (to support their digitization projects) or intend to form private-public partnerships with private entities. The consent and authorization of the right holder is mandatory and has to be reaffirmed prior to any use of his works.²⁴

The *communication to the public* right is also exclusive to the right holders and it is interpreted as making a work available to the public, in such a way that users may access it in a time and place of their choice and with the use of wireless means.²⁵ Since the main purpose of the digitization process, is to offer the ability to users to have access to institutions’ collections online, independently of time and place, it is only expected that these institutions will proceed to digitization and other similar projects that will allow the disposition of their collections through online channels. Therefore they will need the right holders’ consent before doing so, unless they rely on the 2001/29/EC Directive’s article 5(3)(n), which provides an exception for the communication to the public *“for purposes of research or private study, to individual*

23 Klass and Rupp, 2014,p.967.

24 Klass and Rupp, 2014, pp.967-968.

25 Article 3 of the 2001/29/EC Directive.

members of the public [...] on the premises of establishments referred to in 2(c²⁶) of works [...] not subject to purchase or licensing...”.

The two aforementioned copyrights are classified as economic rights. A different set of rights though also applies and must be taken into consideration because they ensure the respect to the relationship of the creator and his work. The so-called *moral rights*, in contrast with the *economic rights*, do not regulate the economic aspects of the use of the works in question, but they examine and ensure the bond of the author and his work. They are further set out in article 6^{bis} of the Berne Convention for the Protection of Literary and Artistic Works as the *rights of attribution and integrity*.

The concept of moral rights differs significantly between the different legislations. The countries following the Continental approach tend to provide a stronger protection of these rights, whereas countries that follow the Anglo-Saxon legislation are more flexible in their approach. Moreover, even in the EU there are differences regarding the protection of moral rights, since no harmonization of the relevant legislation has yet taken place and although every Member State is obliged to follow the general provisions, they maintain the right to adapt them in their national legislations in the way they choose.²⁷ However, it is common policy that despite the differences between the existing legislations, the cultural institutions that make use of intellectual works must in any case show respect to the relevant moral rights, which unlike the economic rights cannot be transferred or waived.

The most common and possible threat for a work that undergoes digitization, is the possibility that its quality is deteriorated or altered in ways that undermine the intellectual pursuit of its author. Cultural works can be altered because of additions or distortions during their digitization that change their form and identity in a significant percentage. As a result there is an infringement of the right of *integrity*, which dictates

²⁶ The establishments, this provision refers to, are publicly accessible libraries, educational establishments, museums and archives that do not intend to benefit from economic or commercial uses of their collections, according to article 2(c) of the 2001/29/EC Directive.

²⁷ Klass and Rupp, 2014, p.969.

that the author of a work has the right to “*object to any derogatory treatment of his or her work that will be harmful to his or her honor of reputation*”.²⁸ Another significant possibility is that the authorship upon specific works is not be properly attributed, which is an infringement of the right of *attribution* of the author (the author retains the right to claim authorship upon his work, irrespectively of his economic rights²⁹).

Moral rights constitute an integral part of the protection of cultural heritage, as each work bears a strong and defining bond to its creator. The disrespect of this bond may distort and alter the identity of the work.³⁰

2.1. The meaning of ‘orphan works’ in the EU Directive.

As it was mentioned in chapter 1.2., a large part of the intellectual works that are included in the public domain, are no longer under copyright protection or their right holders cannot be identified and located (orphan works). For such works to be digitized, their copyright status has to be clarified and their right holders to be identified and located in order to provide their authorization. However, there are two specific types of works, the *orphan* and the *out-of-commerce works*, that are ruled by different provisions and their use is subject to certain exceptions and limitations.

I. Definition of the term “orphan works”

The 2012/28/EU Directive of 25 October 2012 of the European Parliament is the legislative instrument that characterizes certain intellectual works as *orphans* and sets out the terms and prerequisites, not only for their classification as such but also

²⁸ Article 6^{bis} of the Berne Convention.

²⁹ Ibid

³⁰ Klass and Rupp, 2014, p.970.

explains their status of copyright protection and the defines the right holders that can claim them.

To begin with, the directive provides in its second article the definition of the term *orphan work* (referring to the existence or not of right holders that may claim them) in an attempt to clarify the subject matter of the directive. According to it, the following types of works can be characterized as orphans: Works (print works, cinematographic works, audiovisual works, phonograms, photographs, images, unpublished works and phonograms), whose right holders have not been identified or even if one or more of them have been identified, none of them have been located despite the fact that a diligent search was conducted, shall be considered as orphan works.³¹ In addition to this provision, in case there is more than one right holder and not all of them have been identified or even if identified, not have been located after a diligent search for them has been carried out and recorded, then the work in question shall be deemed as an orphan and used in accordance with the directive's provisions. Moreover, it is necessary that the right holders of works that have been indeed identified and located have granted permission to the interested organizations to use their works.³²

It is important to be clarified that the term *orphan work* does not include works that lack copyright protection or exclude the existence of one or multiple right holders. What differentiate orphan works from works with dubious or non existing copyright protection at all is that the right holders of the orphan works (authors, publishers, film producers, photographers etc) cannot be identified or located through a diligent research because the relevant data are missing or are simply outdated.³³

Although it would be expected that works with unidentified or unlocated right holders could be deemed as public-domain works, the problems that arise from such a solution³⁴ compelled the EU legislator to adopt a more broad approach, defining that

31 Suthersanen and Frabboni, 2014, p.665

32 Ibid

33 Suthersanen and Frabboni, 2014, p.666

34 Specific data such as the date of death of a work's author can influence and change the work's copyright

such works are indeed copyright protected but as long as their right holders have not been identified or located by beneficiaries such as libraries, museums, cultural organizations etc, then the aforementioned institutions can make use of them.³⁵

Regarding the issue of the anonymous or pseudonymous³⁶ works, the directive does not intent to prejudice the existing national guidelines, which deal with them. The important issue here is that an organization that wishes to make use of a work, first clarifies whether this work is indeed an orphan work or an anonymous or pseudonymous work. In the first case the terms for its use shall be regulated by the directive, whereas in the latter case the terms shall be defined by the relevant national legislations. As far as digital works are concerned, this definition is rather difficult, as authors who choose to publish through digital channels, are either unidentified or they deliberately conceal their identity for privacy reasons.³⁷

II. Categories of works that can be classified as “orphans”

The first article of the directive sets out three distinctive categories of intellectual works that can be classified as *orphans*, once they fulfil certain criteria. These three categories include: i) Print works, ii) Cinematographic and audiovisual works, phonograms and broadcasts, iii) Embedded photographs and images.³⁸

According to articles 1(1) and 1(2)(a) of the directive the category of print works includes «*books, journals, newspapers, magazines or other writings that were contained in publicly accessible collections, heritage institutions, public service broadcasting organizations etc*». It must be clarified that the scope of this article is restricted to only printed works (and not other forms of works that contain graphic elements, such as electronic databases, photographs, prints etc).³⁹ However article 1(4) clearly states certain works, such as photographs or images actually fall under the scope of this directive, when embedded or incorporated in the works referred in

protection. Unfortunately such information is sometimes difficult to be retrieved, either due to long time gaps between the present and the author's time period or just because of defective documentation).

35 Suthersanen and Frabboni, 2014, p.667

36 Works whose authors deliberately withhold information about their identity and publish either with a pseudonym or anonymously. This can be attributed to their need of privacy or to specific intellectual necessities.

37 Suthersanen and Frabboni, 2014, p.668

38 Suthersanen and Frabboni, 2014, pp.658-662

39 Suthersanen and Frabboni, 2014, p.659

art.1(2)(a).⁴⁰

The second category of works, as described in art.1(2)(b) and 1(2)(c) of the directive (*«cinematographic or audiovisual works and phonograms contained in publicly accessible collections or produced by public service broadcasting organizations up to and including 31 December 2002 and contained in their archives»*), can be deemed to include all recordings of moving images as well as presentations and videogames.⁴¹ The specific time limit established in this article (31/12/2002) clearly serves as a means of controlling and minimizing the orphan works phenomenon, whereas the prerequisite of the public character of the organizations commissioning or producing the protected by the directive orphan works, must be deemed to serve the purpose of limiting the directive's scope of application to works that are exploited by the public service.⁴²

The third category of works that can be characterized as orphans includes stand-alone photographs and images (namely photographs and images not embed or contained in a print work). There is a controversy regarding whether the directive's ambit actually extends to artistic works per se or its scope of application is limited only in the regulation of embed images and other artistic works in larger collections. Taking into consideration the imminent review of the directive by the European Commission, which will possibly extend the directive's scope of application to *«works or other protected subject-matter not currently included in its scope, and in particular stand-alone photographs and other images»*, it is safe to assume that the current directive's scope of application does not include the aforementioned works.⁴³

40 For example, in case that an artwork such as a photograph or an image is embed in a print work (a book or a journal), it automatically falls under the scope of application of the directive. This assumption is supported by the fact that the directive's Annex and the Explanatory Memorandum of the directive clearly list visual works (photographs, illustrations, sketches, designs etc) contained in print published works as protected subject matters (Suthersanen and Frabboni, 2014, p.659).

41 Suthersanen and Frabboni, 2014, p.659

42 It is rather obscure, why the directive recitals exclude cinematographic and audiovisual works, as well as phonograms not commissioned or produced by public organizations from the directive's safe harbors, despite the existence of a licensing agreement authorizing their use. This phenomenon could actually mean that certain orphan films and phonograms would not be classified as EU orphan works, even though they could be the only existing copies of these works or be donated to a specific organization for preservation or maintenance purposes. It is possible though, that if such organizations can produce evidence that they have obtained a full copyright agreement or an exclusive exploitation license for these works for the purposes defined in art.6 of this directive, then the aforementioned works could actually fall under the ambit of the directive (Suthersanen and Frabboni, 2014, p.660).

43 Suthersanen and Frabboni, 2014, p.661

III. Place of publication and beneficiaries entitled to make use of orphan works

Article 1(2)(b) of the directive regulates that in order for a work to be classified as orphan according to the directive's provisions it must have been published or broadcasted in the territory of a Member State. In cases that the work in question was not published or broadcasted in a Member State, then the territory, in which it was firstly made publicly accessible by beneficiary institutions and organizations must be taken into consideration. In any case the consent of the initial right holders is deemed to be necessary in order for such beneficiaries to make use of orphan works. Cases of unpublished works before the application of the directive though may cause various problems, as the necessary evidence concerning whether the unlocated or unidentified right holders have actually given their consent for the use of their works, may be rather obscure.⁴⁴

Article 4 of the directive ensures the perpetuation of the orphan work status everywhere in the EU, up to the point that the right holder of a work may wish to terminate this. Once the work in question has been declared as an orphan in a Member State, then it maintains this status in all Member States (*mutual recognition*). This provision ensures the free circulation of a work in the EU, without the need for more than one diligent search, a strenuous procedure that can be time and cost-consuming.⁴⁵

Lastly, article 1(1) of the directive specifies all these organizations and cultural institutions that are entitled to make use of orphan works, once they have conducted the required diligent search and the works in question have been declared as orphans.⁴⁶ According to this article, institutions such as libraries, educational establishments, museums, archives, film or audio heritage institutions and public service broadcasters can be beneficiaries and make use of orphan works. There are specific guidelines as to whether these institutions must be of public or private character.⁴⁷ There may be private organizations that perform commercial activities

⁴⁴ Ibid

⁴⁵ Suthersanen and Frabboni, 2014, p.679.

⁴⁶ Suthersanen and Frabboni, 2014, p.657.

⁴⁷ Regarding film and audio heritage and public service broadcasters though, a stricter rule applies. These particular institutions must be designated by Member States as competent to "collect, catalogue, preserve and restore films and other audiovisual works or phonograms forming part of their cultural heritage" (Suthersanen and Frabboni, 2014, p.658). This provision appears to concern only organizations of public-service

with such works but at the same time maintain publicly accessible and not-for-profit libraries, archives, museums etc. and therefore they can be qualified as beneficiaries.⁴⁸ On the other hand a public institution may engage in digitization activities that exceed its public interest mission and as a result it cannot be qualified as a beneficiary. Lastly, it is clearly implied that in no case can an individual invoke the provisions of the directive, in order to make use of orphan works.⁴⁹

IV. Diligent search by the interested beneficiaries

All the interested beneficiary institutions (like libraries, museums, educational establishments, archives etc.) are obliged to conduct a thorough and diligent search regarding the whereabouts of the right holders of works that these beneficiaries wish to classify as orphans and make use of them.⁵⁰ The main prerequisites of this procedure are laid out in article 3 of the directive, which specifically calls for: the conduct of the diligent search itself, the determination of the sources that an interested beneficiary will base its search upon, the delineating of the social and territorial extent of the search and finally the method by which the results of the search will be recorded and documented.⁵¹

To start with, there is the possibility that a third party (for example another organization) may conduct the necessary diligent search against a fee. Such an arrangement can be made in cases when the interested beneficiary cannot carry out the required search itself, due to the extent financial demands of the procedure.⁵² Due to the fact that a research conducted by a third-party institution can be deemed not to constitute a sufficient good-faith search, the Member States, in whose jurisdiction the third-party institutions conduct the research, are instructed to conform to the specific guidelines set out in the context of the European Digital Libraries Initiative Guidelines⁵³. However, since the regulation of these third-party organizations is

character. However the possibility that an institution of a more commercial character can serve as a beneficiary for orphan works cannot be ruled out.

48 See supra, note 46.

49 Ibid

50 Suthersanen and Frabboni, 2014, p.671

51 Ibid

52 Suthersanen and Frabboni, 2014, p.672

53 The European Commission adopted in 2005 this set of specific guidelines about the due diligence criteria for orphan works, in an effort to enable the access to Europe's digital cultural heritage (Klass and Rupp, 2014, p.954).

difficult to be determined, the recourse to the guidelines still leaves various topics uncovered.

The determination of the appropriate sources that the interested beneficiaries should consult, are determined by each Member State alongside right holders⁵⁴, users and most importantly references to the directive's Annex⁵⁵. A diligent search is considered to be valid only in case it uses and consults at least the sources contained in the Annex. However the possibility that a work is not registered and thus cannot be found in these databases and sources cannot be ruled out⁵⁶. Usually, works that are not registered or recorded in the relevant databases are works not represented by professional organizations (e.g. papers published by research organization). For such works a more flexible approach is necessary, in order for the most accurate determination of their copyright status⁵⁷

Art. 3(3) defines that for every work, that is to be classified as orphan, only one diligent search is necessary, as long as it is conducted in the Member State, in which the work in question was first published or broadcasted. In case the work in question is a cinematographic or audiovisual work, then it is mandatory that the research is conducted in the Member State, in which the producer of the work maintains his habitual or permanent headquarters. If it is ascertained that the work was never published, then the diligent search must be carried out in the Member State, in which an organization first made it accessible with the consent of its right holder.⁵⁸ An exception to this provision though, defines that if there are sufficient evidence indicating that the whereabouts of the right holder of the work in question may be found in a different Member State than in the aforementioned cases, then it is obligatory that the diligent search includes all the extra-territorial sources as well, even if they are located outside the EU⁵⁹.

The last step of the classification of a work as an orphan is the documentation

54 The term *right holders* may include the so-called collecting societies. Collecting societies are organizations responsible for managing extended collecting licensing, a category that actually includes orphan works (Suthersanen and Frabboni, 2014, p.672).

55 The list of the Annex cites legal deposits, libraries, catalogues, databases, registries etc as appropriate sources that a beneficiary institution should consult during the diligent search (Suthersanen and Frabboni, 2014, p.672).

56 Such works could include private papers, unpublished works or works published by non-for-profit organizations (such as research organizations).

57 Suthersanen and Frabboni, 2014, p.673

58 Ibid

59 Regardless this provisions, there are still speculations and concerns regarding the facility of the interested beneficiary institutions to sustainably conduct such extensive and consequently cost and time consuming researches, in order to render them as diligent.

of the diligent search's official outcomes⁶⁰. Art.3(5) and art.3(6) of the directive define that a beneficiary institution may use an orphan work only after the procedure and the outcomes of the conducted search for its right holder have been recorded in relevant orphan works databases. Such databases are established and managed by OHIM⁶¹. The aforementioned beneficiaries are also obliged to keep records of the use they make of the orphan works and of any possible change of their orphan status.⁶²

V. Orphan works databases

The orphan works databases are necessary, in order to keep a record of both of them and the outcomes of the diligent searches about them (such as information about their copyright protection status). The EU-online database containing all these data has been created and functioning in the context of the 2012/28/EU directive under the administration of the OHIM. All the competent national authorities (e.g. ministries of culture) forward the relevant records to the OHIM, which has to manage and preserve them.⁶³

However the parallel existence of various databases may confuse the interested beneficiaries, as to which one to consult during their diligent search. Therefore it is better to instruct the relevant beneficiaries to forward all the relevant data directly to the OHIM, which is the central orphan works database and will subsequently decide about their best and most effective management.⁶⁴ The existence of a single and authorized source will also enable the procedure of the diligent search, as even a simple search in this database will constitute a good faith search, no matter what the outcomes will be.⁶⁵

Apart from the OHIM, the European initiative has led to the creation of other orphan works databases as well, such as the ARROW database, launched in November

60 However this provision actually contradicts art. 5(2) of the Berne Convention («The enjoyment and the exercise of these rights shall not be subject to any formality; such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work. Consequently, apart from the provisions of this Convention, the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed exclusively by the laws of the country where protection is claimed»), which defines that copyright protection is enjoyed and exercised automatically without the need of such formalities (Suthersanen and Frabboni, 2014, p.674).

61 OHIM stands for "Office for Harmonization in the Internal Market" and it is actually the trademark and designs registry of the internal market of the EU.

62 Suthersanen and Frabboni, 2014, p.674

63 EU Observatory, 2015

64 Ibid

65 Suthersanen and Frabboni, 2014, p.675)

2008 by the eContent programme of the European Commission.⁶⁶ A more thorough analysis of the ARROW database will be discussed in chapter 3.2. of this paper.

2.2. The meaning of “Out-of-commerce works” in the Memorandum of Understanding for out-of-commerce works

I. Definition of the term “Out-of-commerce works”

The term *out-of commerce works* is used to define copyright protected books and learned journals, whose right holders (authors or publishers) no longer make them available, either in the form of new editions or via the ordinary commercial channels.⁶⁷ In fact, such subject matters correspond to works, which would be described as “in-print” or “out-of-print” before the breakthrough of the electronic publishing formats (ebooks), but nowadays their status is better defined by the “in” or “out-of-commerce” term (a book for example can be out-of-print because it is no longer published but still in-commerce, if it is available in an ebook format).

Out-of-commerce works naturally do not interest publishers, as they are often old and commercially unprofitable. They may though constitute an integral part of a country’s cultural heritage and as such, libraries may wish, in the context of their public interest mission, to digitize them in order to preserve them for future generations and to enable their dissemination through online sources. In order for such libraries to achieve their goal, it is necessary that they have the permission of the works’ right holders, prior to any digitization project.

Due to the legal issues and problems that arise, regarding the right holders of out-of-commerce works and the legal procedures that have to be followed for the

⁶⁶ Suthersanen and Frabboni, 2014, p.676

⁶⁷ European Commission, *Memorandum of Understanding (MoU) on Key Principles on the Digitization and Making Available of Out-of-Commerce Works – Frequently Asked Questions*, 2015, [online].

authorization for their use, it was essential to issue a legal document that would define all the parameters and prerequisites necessary for digitization projects and use of out-of-commerce works by libraries. However a strict, legal text that would lack the flexibility, necessary for the efficient cooperation between right holders and libraries, was deemed to be quite restrictive. A soft law instrument was chosen instead and as a result a Memorandum of Understanding⁶⁸ between organizations representing libraries and out-of-commerce works' right holders (authors, publishers and their respective collective societies) was signed in Brussels, on 20th September 2011.

The MOU basically aims at encouraging collective management licensing between right holders and libraries associations. It does not constitute a binding, hard law document but it encourages the voluntary background that is necessary for the better outcome of negotiations between right holders and libraries.⁶⁹

II. Categories of works that can be classified as “out-of-commerce”

The MOU provides a detailed description of what types of works can be considered as out-of-commerce. According to it, *“a work is out-of-commerce when the whole work, in all its versions and manifestations is no longer commercially available at customary channels of commerce, regardless of the existence of tangible copies of the work in libraries and among the public, including through second hand bookshops or antiquarian bookshops”*.⁷⁰ In addition to this definition, it is also stated that the commercial availability of the work in question has to be determined after taking into consideration the relevant, available bibliographic data and infrastructure. Therefore it has to be defined in the country, in which the work was first published.⁷¹

68 The term *agreement* is defined in the MOU's second recital as a “written understanding that leads to a collective licensing scheme, without prejudice to individual agreements with the right holders”.

69 See *supra*, note 67.

70 See the *Definition* of the MOU-Key principles on the Digitization and making available of Out-of-Commerce Works, 2011.

71 *Ibid*

In the first recital of the MOU it is defined that its scope of application only covers books and journals that were first published in the country, where the agreement was requested. These print works are to be digitized and made available to the public by cultural institutions according to the article 5.2(c) of the European Union Directive 2001/29/EC. This provision actually indicates that the MOU is *sector-specific*, meaning that it can only cover the specific sectors, upon which the agreement was signed. Consequently, it does not cover other kinds of works⁷² as well (like films or music) and it cannot be invoked for other kinds of uses. However it constitutes an important initiative that will hopefully encourage further negotiations and agreements for other kinds of cultural works as well.⁷³

III. Agreements regarding Out-of-Commerce Works.

The first principal of the MOU deals with all the relevant agreements that concern Out-of-Commerce Works and can be signed between the interested parties. It is stated that such agreements shall be negotiated on a voluntary ground between the contracting parties (publishers or authors and the interested libraries). The agreements shall concern digitization projects for non commercial or economic uses of works contained in publicly accessible cultural institutions and the contracting parties will mutually define the scope of the agreement as well as other relevant issues, such as the remuneration of the right holders.⁷⁴

Principal 1(2) of the MOU defines that the contracting parties of the agreement must agree on the type and number of works covered by it and ensure that these works fulfill the prerequisites to be classified as out-of-commerce works. The classification of the works as such, depends on and must be conducted according to

72 However recitals 7 and 8 of the MOU define that embedded images in literary works are covered by the Agreement and thus they shall be dealt with the same manner as the literary work that contains them by the collective management organization responsible for the representation of visual works.

73 European Commission, *Memorandum of Understanding (MOU) on Key Principles on the Digitization and Making Available of Out-of-Commerce Works – Frequently Asked Questions*, 2015, [online].

74 Principle 1(1) of the MOU, 2011.

the customary practices of the country, in which the work in question was first published. Each contracting party should contribute accordingly to the procedure.⁷⁵

The existing exceptions and limitations concerning the copyright protection of such works shall be respected according to principal 1(3), whereas principal 1(4) clarifies that the right holders of the works in question maintain the right to claim and acknowledge authorship upon their works and to agree or disagree with possible modifications and distortions of their works (rights of *attribution and integrity*).⁷⁶

IV. Implementation of the MOU

The second principal of the MOU deals with the implementation details of the collective agreements between the various stake holders (authors and publishers) and the libraries.

More specifically, principal 2(1) defines that the necessary licenses for the defined as out-of-commerce works can only be granted by collective management organizations (CMOs)⁷⁷, which represent a considerable number of authors and publishers. It is also important that the aforementioned stake holders are represented sufficiently and appropriately in the decision making bodies of these CMOs.⁷⁸

Furthermore, principal 2(2) of the MOU clarifies that every library that wishes to undertake a digitizing project has to publicize its intention, prior to the execution of the project, in order to inform every right holder of the works involved. This provision was obviously set out, in order to enable the right holders to decide, whether they wish to allow the use of their works by the interested libraries or not.⁷⁹

75 Principle 1(3) of the MOU, 2011.

76 Principle 1(4) of the MOU, 2011.

77 Collective management organizations have as their task to represent groups and societies of copyright and related rights owners (authors, publishers, photographers, musicians, performers etc). These organizations act on behalf of the right holders by issuing licenses, authorizing possible users to use the works of their members. They also negotiate the height of the royalty payments to their members by users and its collection.

78 Principal 2(1) of the MOU, 2011.

79 Provision 2(5) though states that right holders, who wish to withdraw parts or all of their works from the licensing they have previously agreed upon, have the right to do so.

Lastly, principals 2(3) and 2(4) regulate that the right holders that are represented by a collective management society should be notified individually.⁸⁰ In cases though, when a right holder has published his work in a Member State but has not authorized a collective management society to manage his rights, the MOU defines that a collective management that manages similar rights in the Member State of the first publication of the work in question, shall be presumed to manage the rights of this right holder.⁸¹

2.3 Copyright exceptions and limitations concerning “orphan” and “out – of-commerce works”

Orphan and out-of-commerce works, as it was discussed in the previous chapters, constitute copyright protected subject matters. Their particularity lies in the fact that the first ones have indeed right holders, but it is impossible to identify or even if identify, locate them (even though a diligent search is conducted by the relevant beneficiaries that want to use these works) whereas the right holders of the latter are identified and located but they no longer make their works available through the ordinary commercially channels.

Those two categories of works fall under the scope of the 2001/29/EC Directive that deals with the harmonization of certain aspects of copyright and related rights in the information society, meaning that the use of such works is subject to certain regulations and provisions. More specifically, the directive sets out provisions that protect the right holders’ rights of allowing or prohibiting the reproduction⁸² or

⁸⁰ Principle 2(3) of the MOU, 2011.

⁸¹ Principle 2(4) of the MOU, 2011.

⁸² Article 2 of the 2001/29/EC Directive.

communication to the public⁸³ of their works. These provisions have been clearly set out to prevent the commercial exploitation of the right holders' works by third parties without their consent. However, they cause complications and obstacles for the beneficiaries that wish to digitize and make use of such works for preservation and dissemination purposes. The problem is actually that copyright protection expands through an extensive period of time⁸⁴ and as a result the use of these works depends on the right holders' wishes.

This speculation was further discussed in the *Communication on Copyright in the Knowledge Economy (19.10.2009)*, adopted by the European Commission.⁸⁵ According to it, digitization projects constitute part of the policy for the free circulation and dissemination of knowledge and ideas. This cause is achieved by libraries and cultural institutions that try to preserve their archives and allow the access to them via online channels.

However due to the strict copyright limitations for the use for such works, teaching and research institutions try for a more flexible approach towards an unhindered dissemination of knowledge. A specific challenge is the cross-border access to their material as well as the easier access for people with disabilities, who face difficulties in accessing the relevant goods and services.⁸⁶

On the other hand though, right holders (authors, publishers) and their representatives (collective management organizations) fear that the waiver of the limitations for the use of their works for digitization projects will have as a result the corrosion of their revenues and the infringement of their rights. Consequently, it is

83 Article 3 of the 2001/29/EC Directive.

84 According to the Berne Convention the minimum term of protection is the life of the author and 50 years after his death. However recital 7 of the 2006/116/EC Directive defines, that some Member States have opted to grant a term longer than 50 years after the author's death. According to article 2 of this directive "the rights of the author shall run for the life of the author and for 70 years after his death, irrespective of the date when the work is lawfully made available to the public".

85 European Commission's Communications are policy documents with no mandatory or legal effect. The Commission opts to publish them whenever they wish to set out their thoughts and reflections upon an important subject (European Judicial Network in civil and commercial matters, Glossary, 2016).

86 Communication on Copyright in the Knowledge Economy by the European Commission, 2009, pp.7-9.

highly essential that a suitable framework is formed, in which both copyright protection and equal access to knowledge co-exist.

Regarding the issue of orphan works, the 2012/28/EU Directive defines in article 6, that Member States shall grant exceptions to the rights of reproduction and making available to the public to make sure that the interested beneficiaries (*“publicly accessible libraries, educational establishments and museums, archives, film or audio heritage institutions and public-service broadcasting organizations established in Member States”*, as laid out in article 1(1) of the directive) shall have the ability to use the orphan works in question for purposes that according to article 6(2) of the directive, will contribute to their public-interest mission, such as digitization projects, preservation and cataloguing. It is also necessary that the name of identified right holders or authors of works classified as orphans are indicated, whenever the works are used.⁸⁷

The aforementioned provision also contains a certain limitation. According to article 6(2), the orphan works may be used and reproduced only for purposes that serve the public-interest missions of the beneficiaries (as it was discussed in the previous paragraph) and not for projects that aim at their commercial or economic exploitation. The generation of revenues by the exploitation of the works in question, is only justified when it aims at covering the costs of the digitizing projects.⁸⁸

This provision actually raises some questions. For example, if the generation of revenues is only allowed for enabling the beneficiaries' public-interest missions, is it safe to assume that these beneficiaries are allowed to accept financial contributions from commercial entities, in order to sustain and maintain their collections and their facilities? Is the generation of revenues justified by the need for improved technological measures that will enable and improve the services of the beneficiary? The answer to these speculations is rather obscure and unclear. It is rather debatable whether private, non-state or privately subsidized organizations can actually benefit

⁸⁷ Articles 6(1), 6(2) and 6(3) of the 2012/28/EU Directive on certain uses of orphan works.

⁸⁸ Article 6(2) of the 2012/28/EU Directive.

from the provisions of the directive. At any case the answer depends on the specific conditions and circumstances.⁸⁹

As far as out-of-commerce works are concerned, we can trace some more specific limitations concerning their digitization and use by beneficiaries in the MOU. Principal 1(1) defines that any voluntary agreement for the use of out-of-commerce works may be done for purposes and uses that do not aim at the economic or commercial benefit of the work in question. This limitation is in accordance with the limitations of the same character regarding orphan works and the clauses for their not economic exploitation by the beneficiaries. Another limitation can be found in principal 3(1), which dictates that in cases when an agreement includes in its provisions clauses for commercial or cross-border uses, then the collective management organization may be obliged to limit its licenses of out-of-commerce works to those, the right holders of which are represented.⁹⁰

The MOU and the 2012 Directive are complementary to each other and both are used in order to facilitate the management and handling of cultural material. There are many cases where orphan works can also be classified as out-of-commerce works so the interactivity and interoperability of these two legal texts is necessary for the better achievement of mass digitization projects.

Apart from the existing legislation that deals with orphan and out-of-commerce works though, the widespread of digital technologies creates needs for new and improved legal frameworks. The exceptions provided for the use of orphan and out-of-commerce works are significant, however there are still potentials for improvement. The European Commission, in the context of its Digital Single Market Strategy (the effort to create a single digital market throughout Europe, where there will be no barriers for the use and cross-border accessibility to online goods and services), is

⁸⁹ Suthersanen and Frabboni, 2014, p.684-685.

⁹⁰ Principals 1(1) and 3(1) of the MOU.

making significant efforts towards the creation of a copyright framework, harmonized with the needs of the modern society.

On 9/12/2015 the Commission issued a press release notifying the public about their intentions to proceed to amendments to the existing copyright legislation, in order to enhance the creation of the single digital market. Alongside with a Regulation proposal (*“On ensuring the cross-border portability for online content services in the internal market”*), a Communication entitled *“Towards a modern, more European copyright Framework”* was issued by the Commission. The Communication sets out the Commission’s short-term objectives for the improvement of the accessibility to digitized, cultural material. More specifically, it declares that the Commission will work towards ensuring that the exceptions that concern educational purposes and cross-border accessibility will be implemented effectively. In order for this to be achieved, the Commission will consider proposals for the support and enhancement of the remote consultation of digitized works hosted by educational and research institutions, the provision of the suitable framework for the digital preservation of cultural heritage with the use of digital technologies, the clarification of the scope of exceptions for educational purposes through online learning etc.⁹¹

The aforementioned provisions constitute only a small an indicative part of the Commissions plans for the harmonization between the needs of the modern, digital society and the rights of the right holders and authors of intellectual works.

3.1. Digitization and online accessibility

The main goal of the digitization initiative throughout Europe is the dissemination of ideas and knowledge, the access to information and the preservation of cultural works in digital form for future generations. Culture is a vital pillar of a

⁹¹ Communication towards a modern, more European copyright framework, 2015, pp. 6-8.

globalized and united society, which prospers with the aid of intellectual creativity and offers chances for growth, economic and cultural investments. Europe is characterized by a wide cultural and intellectual diversity that is too extent to be accessed by conventional ways (physical presence to the actual location of cultural artifacts and works).

A large number of people nowadays use internet sources and channels in order to entertain themselves, search for information and enhance their education. Cultural institutions, like libraries, archives and museums that have realized this social need, attempt to or have already converted their collections into digital forms. This initiative runs in parallel with the international call for an equal and equivalent access to knowledge for scholars, the broader public and of course people with disabilities.⁹²

The online accessibility of digitized content is equally important to the digitization itself. Although the preservation of cultural heritage is indeed achieved by its digitization, the rights and privileges of users are achieved once they have the ability to access this material and use it for educational or other reasons. Although the digitization and the making available of the cultural heritage is a demanding process (both in technical and financial terms), it creates favorable potentials for the cultural society.⁹³

First of all, it is apparent that the online access to cultural material is not limited to a certain number of people. On the contrary, it is open and possible for everyone, with only a minimum set of technical means at their disposal. While the traditional access to cultural heritage artifacts (by the term “traditional” the actual physical visiting of museums, libraries and archives is indicated) is limited by various conditions such as the capacity of the premises of the institution, the visiting hours or the staff that can help and guide the visitors, online accessibility is unhindered and may be achieved in much more flexible conditions by almost everyone.⁹⁴

92 Klass and Rupp, 2014, p.948.

93 Ibid

94 Klass and Rupp, 2014,p.950.

Secondly, once the digitized material is accessed and retrieved, the user has the ability to consult and use it for as long as he wants to. The time that he needs to access the digital material is also significantly reduced in comparison with the time he would need, if he was obliged to search for it in the conventional way (for example, the manual search for a specific archive can be really time-consuming, especially if the institution that hosts it is rather extent). The same principal applies as far as distance is concerned. The long-distance access that digitization provides is a crucial benefit for the users, as it allows them to reach works and material that is far from them and they do not have the ability to reach them otherwise.⁹⁵

Another important benefit of the online accessibility is of course the amount of data that the user can retrieve with a single access to digitized material. Although, a conventional institution (library or archive) may contain only a limited number of works, due to capacity reasons, online accessibility is not hindered by physical barriers and the user may retrieve as many data as he needs to. Furthermore, most cultural institutions have thematic organization, which means that the works that they host belong to a specific sector. Online accessibility on the other hand, allows a user to reach multiple works and sources with a single online search.

The next step following the outburst of digitization was the need for creation of central points of online access to the digitized material. This demand was satisfied by the concept of digital libraries. The notion of digital libraries actually resembles the conventional idea of a conventional library, in which data in electronic formats are stored. Digital libraries are online portals that can contain a large number of digital contents and are usually maintained by educational institutions, academic establishments, cultural organizations and private institutions. Furthermore, many museums nowadays convert their collections and exhibitions in 3D digital forms, offering the users the chance to browse in a virtual environment that corresponds to their physical premises.

95 Ibid

Apart from digital libraries there are also online registries that serve as a search tool, guide users in their search for specific cultural works and redirect them accordingly. Those registries have also the benefit of containing important metadata about the digitized material, namely information about its contents and context, thus enabling a better and more thorough record of it. Two distinctive examples of online portals and registries are the Europeana Digital Library and the ARROW system of registration for Orphan Works respectively.

3.2. Europeana, ARROW

1. Europeana

In order for Member States to be encouraged to initiate digitization projects and support the digital preservation of their cultural heritage, the European Digital Library network *Europeana* project was launched in the context of the i2010 strategy,⁹⁶ under the supervision of Ms Viviane Reding, the European Commissioner for Information Society and Media (November 2008). Its inception can be traced back in 2005 in a letter that the former President of France, Jacques Chirac had sent to the Presidency of Council and the Commission alongside with the ministers of Germany, Italy, Spain, Hungary and Poland and in which they proposed the initiation and construction of a virtual library of Europe that would serve as a research tool that would enable access to digital, cultural content.⁹⁷

96 «i2010 is the European Commission's new strategic framework laying out broad policy guidelines for the information society and the media. The purpose of this new, integrated policy is to encourage knowledge and innovation with a view to boosting growth and creating more better-quality jobs. It forms part of the revised Lisbon Strategy», as retrieved from the EUR-Lex-Europa, i2010: Information Society and the media working towards growth jobs.

97 Klass and Rupp, 2014, pp.956-957.

Europeana is part of Europe's cultural strategy that promotes and encourages the exchange of ideas and the free circulation of knowledge and information. In accordance with the demands of modern society, Europeana may facilitate the initiation and development of various applications and tools based on digitized cultural material, which will encourage the economic activity in the cultural field. It may also constitute the base for the development of new and innovative technologies related to culture that will enter dynamically the marketplace.⁹⁸

Europeana is funded and supported by the CEF (Connecting Europe Facility) project, alongside with contributions by the EU Member States. CEF is a program proposed by the Commission and designed to support the European Union's infrastructures and networks in the transport, telecommunications and energy sectors. It also contributes to the funding of trans-european digital services, including electronic identification, online dispute resolution and health services and aims at the improving of the daily life through digital services and the creation of a strong Digital Single Market in Europe.⁹⁹

More specifically, through CEF Europeana has its central services and all the relative networks funded, coordinated, maintained and promoted. It also has many of the necessary generic services (including the collection of the cultural content, the handling of the services that enable the access to the digital content and the enhancement of the interactivity of various services and contents of the portal) funded and managed, thus enabling the coordination and performance of the Europeana project.¹⁰⁰

II. Main objectives of the Europeana project

Europeana does not function as an actual content provider. It serves as an intermediary tool that facilitates the search for digitized content and provides links

⁹⁸ Digital Agenda for Europe-A Europe 2020 initiative, A European Digital Library for all, 2015.

⁹⁹ Digital Agenda for Europe-A Europe 2020 initiative, Digital Service Infrastructures (DSIs), 2015.

¹⁰⁰ Digital Agenda for Europe-A Europe 2020 initiative, Connecting Europe Facility (CEF), 2016.

that relocate the user to the webpages of cultural institutions that own and manage the digital content. In other words, Europeana does not contain digitized material itself, rather than it is an Internet portal that allows users to have access from a single point to collections of libraries, museums and archives. The digitized material remains with the cultural institution that hosts it and is accessed by users through the institution's web portals.¹⁰¹

The aforementioned collections are composed of books, films, works of art etc. Europeana basically aims at allowing users to cooperate with cultural institutions and making this digitized material available to public, endorsing the creative economy and connecting various types of cultural institutions.¹⁰²

Europeana was designed in order to achieve certain objectives that were adopted in the context of the 2011-2015 Strategic Plan. Among the Strategic Plan's main objectives was the intention to help European citizens familiarize themselves with the variety of the European culture diversity and enable the cooperation between professionals in the cultural field.¹⁰³

In order for the aforementioned goals to be achieved, Europeana was planned to serve four main strategic tracks. The first one is described as the attempt to *"aggregate content to build the open trusted source of European heritage"*. Therefore, the main goal here is to collect digitized cultural material that is characteristic of Europe's cultural diversity, extend the network of providers of this material and improve the quality of the data that provide information about it (metadata).¹⁰⁴

The second track is described as an attempt to support the cultural field by *"enabling the transfer of knowledge, the innovation and advocacy"*. More specifically, the transfer of information obviously refers to the cooperation and interactivity of professional scholars in the cultural sector, such as librarians, curators, archivists etc. The main goal here is to enable the improvement and evolution of the digital

101 Klass and Rupp, 2014, p.959.

102 Klass and Rupp, 2014, pp.956-957.

103 Klass and Rupp, 2014, p.958.

104 Europeana Strategic Plan 2011-2015, pp.12-13.

environment that interacts with fields such as usability, Intellectual Property Rights, business models etc. This objective can be accomplished with the distribution of guidelines regarding the best practices of the digitization of cultural heritage, alongside with relevant conferences and workshops. Furthermore, Europeana is to serve as motivation point for the development of digital applications relevant to cultural heritage, as well as reinforce its role as advocate for the open and unhindered access to digitized cultural material.¹⁰⁵

The third objective of the Europeana project is entitled “*distribute*” and basically expresses the disposition to “*make cultural heritage available to users wherever they are, whenever they want it*”. For this goal to be achieved, the upgrade of the Europeana portal is necessary, alongside with the development of applications that will allow the accessibility and retrievability of the digitized content.¹⁰⁶

The last track of the Strategic Plan, is called “*engage*”, and is of more interactive character. It actually aims at involving the users in their own cultural heritage. More specifically, users are expected to participate in the launch of virtual exhibitions, the conduct of surveys, provide feedback regarding the Europeana’s services etc. By involving users in the creation process, the Europeana portal may play a vital role in the creation of a wider knowledge society, in which information is disseminated freely. Also users will be motivated to interact with their cultural heritage, instead of just observing it.¹⁰⁷

III. Users of Europeana

An integral element of the Europeana project is the definition of its users. Considering that the purpose for its development was the dissemination of knowledge and the facilitation of the public that needed to have access to cultural material, it is apparent that the determination of the types of its users helps at its improvement.

105 Europeana Strategic Plan 2011-2015, pp.14-15.

106 Europeana Strategic Plan 2011-2015, pp.16-17 and Klass and Rupp, 2014, p.959.

107 Europeana Strategic Plan 2011-2015, pp.18-19 and Klass and Rupp, 2014,p.959.

The first category of users is that of the academics and it includes professionals (such as teachers, professors and researchers) that use Europeana as a tool to extract information and material for courses or conduct researches. A subcategory includes pupils and students that seek information and material for courses and papers.¹⁰⁸

The second category of users involves the actual cultural institutions. For their facilitation a specific intermediate application was developed under the name “Application Programming Interface” (API), which contains external web pages and applications that allows cultural institutions that have installed it to access Europeana’s digitized content.¹⁰⁹

Another field that is benefited from the services of the Europeana portal is a total of various creative industries (including commercial creators and intermediaries) that want to design and launch new products and services for the information industry. For that reason they need access to Europeana’s services in order to develop new innovations and products, relevant to the cultural field that will be commercially channeled.¹¹⁰

Last but not least, Europeana addresses to a wider, general public of the EU that wants to interact with and have access to its contents for various reasons. This public benefits from the flexibility of the access to digitized content, in order to get acquainted with cultural heritage in means and time convenient for them.¹¹¹

IV. Data exchange agreement (DEA)

Every entry in the Europeana portal is accompanied by certain metadata (the notion of which will be discussed in the following chapter).¹¹² It is apparent that these metadata are ruled by Intellectual Property Rights and constitute part of the content provided to Europeana. Therefore the Europeana foundation has adopted a Data

108 Klass and Rupp, 2014, p.960.

109 Klass and Rupp, 2014, p.961.

110 Ibid

111 Ibid

112 As metadata we define details and information about the context and contents of other types of data.

Exchange Agreement (DEA), which defines relationship between Europeana and its content providers. Among others the DEA it defines that Europeana has to publish metadata of the digitized collections it offers access to.¹¹³

More specifically, the DEA defines that: i)all metadata relevant with the submissions to Europeana, will be considered as openly accessible data under the Creative Zero Public Domain Dedication (CC0-a legal framework that allows a right holder to grant their rights to the public domain) and ii)digitized cultural content that is available through Europeana, must be accompanied by a copyright-status statement.¹¹⁴

Furthermore the DEA aims at ensuring that the Aggregators (the Council of Europeana as established in article 1 of the agreement) have been properly authorized to publish metadata for digitized material under the CC0. For this reason, Europeana has established a clause template that defines the legal prerequisites and provisions, according to which each agreement between Aggregators and data providers should be sealed.¹¹⁵

I. The ARROW Database

Part of the European digitization policy is the launch of certain online registries that host, preserve and allow access to all the information regarding digitized works. The role of such registries is really important as they contain information and details regarding the copyright status of certain works hosted in libraries, archives, museums, film and audio heritage institutions and public-service broadcasting organizations.¹¹⁶

The most important registry project that has been launched is the ARROW project (acronym for Accessible Registries of Rights Information and Orphan Works), which was founded by an association of European libraries, publishers and collective

113 Digital Agenda for Europe-Europeana-A European Digital Library for all, 2015.

114 Europeana Pro, The Data Exchange Agreement, 2016.

115 Ibid

116 EU Observatory, Orphan Works Database, 2015.

management organizations, in order to enable and simplify the procedure, through which a diligent search regarding the whereabouts of an orphan work and its right holders is conducted.¹¹⁷ The ARROW system was created in the context of the eContentPlus programme¹¹⁸ and is administered by both the European Commission (50%) and by an association of partners (50%).

ARROW concerns i)printed works such as books, journals, newspapers etc. ii)cinematographic, audiovisual and phonogram works iii)works that were never published (under certain conditions) iv)works embedded in other works (such as photographs contained in books or journals) v)works that are partially classified as orphans (only some of their right holders have been identified, located and consented to the use of their works).¹¹⁹

ARROW aims at enabling interested beneficiaries in their search for the right holders of intellectual works, because only the right holders have the authority to authorize their digitization and making available to the public. ARROW is a central base, which serves as a right clearance access point and enables the digitization and use of orphan works.

II.ARROW Database function

When a user wants to use the ARROW system, he has to submit a request¹²⁰ for an exploitation license for digitized, copyright protected material. Following the submission of his request, the ARROW system will run an inquiry to all the available databases, in order to locate and collect the relevant information concerning the work

117 Klass and Rupp, 2014, p.974.

118 *"The eContentplus programme will contribute towards supporting the development of multilingual content with a view to supplying innovative on-line services in the European Union (EU). It will make it possible to reduce fragmentation of the European digital content market and to improve access and ease of use of geographical information, educational material and cultural content"*, as retrieved from the EUR-Lex-Europa, eContentplus Programme, 2016.

119 EU Observatory, Orphan Works Database, 2015.

120 Specific guidelines on how to submit a request to the ARROW System are provided in About ARROW, Presenting the ARROW System, 2016.

in question. Thereafter the interested user will be informed accordingly, whereas in cases when no information regarding a right holder is found, the results will be recorded in the Registry of Orphan Works (ROW).

The ARROW System uses the following databases, in order to collect information regarding orphan works and right holders, using the ONIX-RS message suite, which was developed for it: i)The European Library, which acts as an access point to national library catalogues in France, Germany, Spain and the UK¹²¹, in order to identify a book and to enlist it alongside with other books containing the same work ii)the Virtual International Authority File (VIAF), which helps in identifying the authors of copyright protected works by providing access to bibliographic and authority records iii)The “Books in-print” (BiP) databases of France, Germany, Spain and the UK, stationed in the Member State of publish, in order to clarify if any of the books in question are currently commercialized iv)Collective Management Organizations in France, Germany, Spain and the UK (such as the Reproduction Rights Organization-RRO) that can inform about or even locate right holders.¹²²

All the information collected during the ARROW inquiry process, form the so-called Rights Information, which actually contains rights clearance data, such as whether the work in question is copyright protected or part of the public domain, whether the work is still commercialized or characterized as out-of-commerce, if the work is qualified for the orphan works status or its right holders can be identified and located etc.¹²³

Lastly, it should be noted that the ARROW database is composed by various, supplementary components such as the RII (The Rights Information Infrastructure), which allows ARROW to retrieve information from various data providers, process this information, exchange them and make the finally decisions on a planned work scheme,

121 As of 2012, more countries' libraries are to be connected to the ARROW System, including those of Greece, Italy, Belgium, the Netherlands,

Ireland, Latvia, Poland, Portugal. (About ARROW, Inclusion of new countries, 2016).

122 About Arrow, The ARROW System in action, 2016.

123 About Arrow, What is Rights Information?, 2016.

the ARROW Work Registry (AWR), which serves as a storage and maintenance platform for the collection of data regarding the copyright status, the publishing status and the orphan status of works, the ARROW Web Portal Services and the ROW (Registry of Orphan Works), which is filled automatically with every new entry in the orphan works catalogue.¹²⁴

It is obvious that the ARROW System aims at reducing the time and cost effects that a diligent search for the right holders of orphan works requires. This helps many interested beneficiaries (libraries, archives, museums etc.) that wish to digitize works and allow access to them through Europeana as well as users in the public or private field.¹²⁵

3.3. Metadata

A key aspect of digital storage and preservation of cultural content (or any other type of content) is its capacity for retrieval and continuing accessibility. Although digital preservation is deemed to be safer than the preservation of the original physical object, evolution of technology and changes in cultural organizations' template may indicate risks for the stability of the accessibility to digitized content.¹²⁶

Preservation of digitized material depends significantly on the existence of metadata. As metadata we define information that depict and explain other data. In other words a set of information referring to resource that can be of any format (electronic or print texts, multimedia, software, physical objects, art works, archives etc).¹²⁷ In a traditional library system, as metadata we indicate the cataloguing of formal information describing an entry to the library, whereas the same rule applies to any other kind of recorded works (electronic documents, art works, archives etc).¹²⁸

124 Klass and Rupp, 2014, p.975.

125 Klass and Rupp, 2014, p.975.

126 NISO, Digital Preservation Metadata Standards, 2010, p.5.

127 ATHENA Booklet, Digitisation: standards landscape for European museums, archives, libraries, 2009, p.16.

128 NISO, Understanding Metadata, 2004, p.1.

Digital metadata (namely metadata of digitized content) can be classified under four main categories, according to their function. The first category is called *descriptive metadata* and they are used to describe a resource providing information such as the name of its author, relevant keywords, the historic its historical context etc. The second category, defined as *structural metadata* includes information about the physical structure of the digitized subject matter (e.g. the order of the pages of a digitized book or journal, information about one type of work embedded in another etc.). The third category of metadata, characterized as *technical metadata*, is constituted by technical details about digital objects, such as information about the software system by which a digital object is executed (this is the case with digital signatures). The last category, under the classification *administrative metadata*, informs about the provenance of the digital object, its preservation status as well as the permissible access to it.¹²⁹

The aforementioned classification may vary from framework to framework, but the categories and their contents are never ambiguous. Moreover metadata can form schemes (alternatively called schema), which are actually groups of metadata elements structured and organized for a specific aim (e.g. the provision of information about a specific resource). The properties that describe the resource are called *semantic unit* of the scheme, whereas the schemes themselves follow a standard, repeatable structure¹³⁰ every time they are used, in order to ensure the interoperability between the different institutions hosting and using digitized content.¹³¹

Over the years there were a number of schemes, each one corresponding to different user demands and needs. One notable example would be the minimum metadata standard scheme "*Dublin Core Schema*", which provides information for web documents. It includes 15 elements (Title, Creator, Subject, Description, Publisher,

129 NISO, Digital Preservation Standards, 2010, p.6.

130 Set out by international standard communities, such as ISO (International Organization for Standardization).

131 NISO, Understanding Metadata, 2004.p.12.

Contributor, Date, Type, Format, Identifier, Source, Language, Relation, Rights and Coverage), which are optional and repeatable. There is a variety of schemes similar to this structure, with differences in the elements or their order of appearance.¹³² The existence of multiple metadata standard schemes serves their purpose-oriented nature (the metadata schemes are chosen by an institution according its needs). Moreover two or more of them can act complementary to each other, in order to describe the same resource.¹³³

The metadata field is under constant evolution as new needs call for new standards. The application of metadata has enabled the easier retrieve and exchange of information significantly, supplementing the purposes of digitization in the Information society.

4.1. Uses of digitized material by cultural institutions

Digitization is used in many aspects of everyday life. The possibilities that it offers are vast and if properly exploited, they can upgrade the infrastructures of many sectors of modern society. The key to sustainability lies in the modern technologies and it is vital that they are used in as many fields and services as possible.

As far as the cultural sector is concerned, it is apparent that the conventional ways that were used up to recent years for the preservation and dissemination of cultural heritage, will not be adequate in the years to come. Museums, libraries and educational institutions are already adapting to new means of preserving and displaying their contents, in order to attract more users and visitors. The update of their infrastructures is in the top priorities of the European Agenda for Culture.

¹³² NISO, Understanding Metadata, 2004, p.3.

¹³³ NISO, Understanding Metadata, 2004, 11.

I. Museums

Many museums nowadays have launched the creation of a virtual environment that allows their visitors to browse their collection with a single online access. This is achieved by the conversion of the contents of the museum into 3D digitized data that recreate the image of the actual premises of the museum. This application creates the sense that the user is actually in the museum (although he may be in a remote place), it offers flexibility and autonomy without time and space limitations.

One of the most significant examples of this application is the Smithsonian Museum of National History in Washington DC. The visitor is able to browse in a virtual portrayal of the actual museum, with the use of a simple computer. Through the relevant webpage he may choose between the ground and the two floors of the museum and have access to any hall that he chooses. There is also the possibility to zoom in to the exhibits if he wants to examine them more thoroughly or read the relevant information displayed next to them. Throughout the whole visit, the visitor has access to help about the webpage and is also presented with a virtual map, which informs him about the contents of each premise of the museum.¹³⁴

An equally interesting case is the Metropolitan Museum of Art in New York, which allows visitors to view artifacts and objects of its current exhibitions online. The user can choose between the different exhibitions and enlarge each image in order to view the relevant details (like the name of the artifact, the name of the artist, its dimensions, date of creation etc). Although, the various exhibits are displayed in 2D depiction, it still remains an extremely interesting initiative, as it offers the chance for access to a very large number of artifacts.¹³⁵

In the same context, the Museum of the Acropolis in Athens allows the browse in digitally available images of some of its exhibits. It also allows the enlargement of

¹³⁴ Smithsonian National Museum of Natural History, 2016.

¹³⁵ The Metropolitan Museum of Art, 2016.

some of its most important statues and other exhibits and offers analytical details regarding their origins and history.¹³⁶

II. Libraries and educational portals

National libraries all over the world, undertake digitization projects, in order to offer unhindered access to their collections. Europeana serves as a central access point to this net of libraries, offering access to an important amount of digitized material.

Such an example would be the National Library of Portugal, which offers some of its books in pdf form. The user may not only read these books online but also has the ability to download and store them in his computer for future use. The books are classified under descriptive categories, while their relevant metadata are provided as well.¹³⁷

The National Library of Scotland offers access to a significant number of its contents in digital form. In the relevant webpage, the user can browse very interesting categories such as *“Histories of Scottish Families”*, *“Recipes of Scotland”*, *“First World War official photographs”*, *“The Bartholomew Archive”* etc. The user can read and view various books and archives and in most cases may also have access to information about the copyright status of the work, historic details, print information etc.¹³⁸

Lastly, the National Book Centre in Greece has digitized some of the most important Greek journals like *“Nea Estia”*, *“Periplous”* and others. The digitized collection contains in some cases all the published issues, thus creating an archive of great cultural value and significance.¹³⁹

Last but not least, a mention to the portal TLG (Thesaurus Linguae Graecae) is necessary. TLG is a research center of the University of California, founded by Marianne McDonald, a graduate student of the University of California at the time and

¹³⁶ The Acropolis Museum, 2016.

¹³⁷ Biblioteca Nacional De Portugal, 2016.

¹³⁸ National Library of Scotland, 2016.

¹³⁹ National Book Centre, 2016.

now Professor at the Department of Theater and Classics. TLG constitutes a compilation of digitized Greek literature texts, dating from the Homeric age to the fall of Constantinople. The first version of the collection was digitized and stored in CD-ROM format with the use of the *Ibycus* software that was used to encode the Greek polytonic system. Nowadays and after the necessary upgrades in the codification of its context, this compilation is available to subscribed education and research institutions all over the world, contributing significantly to the linguistic field.¹⁴⁰

Conclusions

Cultural heritage is a vital pillar of every society. It is an integral part that has to be protected, disseminated and preserved for future generations. The key to sustainability is the development of new media and technologies. Thus, the cultural sector has to use such means, in order to ensure its sustainability.

Digitization is an important aspect of the cultural industry. It brought about significant changes in the ways that cultural artifacts are preserved and displayed and created new challenges. The most complex aspect of digitization is the legal framework that rules not only the technical procedure itself but also the cultural works that are digitized. There is a conflict of interests between the right holders of cultural works and the public demand for an equal and unhindered access to cultural heritage. The harmonization of these two aspects is a real challenge.

The existence of the European legislation for the access to cultural heritage in digital form covers specific categories of works, such as the orphan and out-of-commerce works. The 2012/28/EU Directive on certain permitted uses of Orphan Works and the Memorandum of Understanding on the digitization and making

¹⁴⁰ TLG, 2016.

available of out-of-commerce works both deal with the terms and prerequisites that regulate the permitted uses of those works. They also set out exceptions and limitations regarding their use by beneficiary institutions. However there is a continuing public discussion and speculation about the problems that have not yet been solved. The most recent example of this speculation is the issue on 9/12/2015 of a Regulation proposal by the European Commission that includes provisions that will further deal with the subject of the access to digital heritage by the public.

The fact that the cultural sector is among the top priorities of the European Agenda is very encouraging, as it indicates that the intellectual expression has not been minimized in the modern technocratic society. It is very important though to make every possible effort and use all means at our disposal, in order to preserve it. The best way to achieve that is to adapt to the new media and technological innovations that will significantly contribute to the creation of a globalized society of knowledge.

Bibliography

About Arrow, *Presenting the Arrow System*, 2016 [online]. Available at <<http://www.arrow-net.eu/presenting-arrow-system>> [Accessed January 12, 2016].

ATHENA, Access to cultural heritage networks across Europe, *Booklet: Digitization: standards landscape for European museums, archives, libraries of October 2009*, 2016, [online]. Available at <http://issuu.com/mtn.59/docs/digitisation__standards_landscape> [Accessed January 25, 2016].

Beck L. S., Digital Documentation in the Conservation of Cultural Heritage: Finding the Practical in best Practice, *ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 2013, vol.XL-5/W2, pp.85-90, [online]. Available at <<http://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XL-5-W2/85/2013/isprsarchives-XL-5-W2-85-2013.pdf>> [Accessed September 17, 2015].

Biblioteca Nacional De Portugal, *Biblioteca nacional digital*, 2016, [online]. Available at <<http://purl.pt/index/geral/PT/index.html>> [Accessed January 18, 2016].

Bonello C., Discovering the digitised law library of heritage collections: a collaborative achievement between French libraries, *Legal Information Management*, 2012, vol.12 (4), pp297-304 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744d0640000014fe7db6513520d5ad0&docguid=I34FFA08148D811E29762D0E7F5350F49&hitguid=I34FFA08148D811E29762D0E7F5350F49&rank=23&spos=23&epos=23&td=107&crumb-action=append&context=12&resolvein=true>> [Accessed September 8, 2015].

Burri M., Digital technologies and traditional cultural expressions: a positive look at a difficult relationship, *International Journal of Cultural Property*, 2010, vol.17 (1), pp33-63 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744d0640000014fe7db6513520d5ad0&docguid=I3E44D02026EC11E1BB76F07AD9140430&hitguid=I3E44D02026EC11E1BB76F07AD9140430&rank=20&spos=20&epos=20&td=107&crumb-action=append&context=12&resolvein=true>> [Accessed September 15, 2015].

Cameron F., Kenderdine S. (eds), *Theorizing Digital Cultural Heritage-A Critical Discourse*. MIT Press 2007, Cambridge Massachusetts.

Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, [2001], OJ L167/10.

Council Directive 2012/28/EU of 25 October 2012 on certain permitted uses of orphan works, [2012] OJ L299/5.

Curr K., Digital collections: repackaging information for our users, *Legal Information Management*, 2001, vol.1 (2), pp17-20 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744d0640000014fe7db6513520d5ad0&docguid=IFA061EA0E72A11DC88EB9BE684C867E2&hitguid=IFA061EA0E72A11DC88EB9BE684C867E2&rank=54&spos=54&epos=54&td=107&crumb-action=append&context=23&resolvein=true>> [Accessed September 19, 2015].

Derclaye E.(ed), *Copyright and cultural heritage: preservation and access to works in digital world*. Edward Edgar Publishing 2010, UK-USA.

Digital Agenda for Europe-A Europe 2020 Initiative, *Digitization & Digital Preservation*, [online]. Available at < <https://ec.europa.eu/digital-agenda/en/digitisation-digital-preservation>> [Accessed September 19, 2015].

Digital Agenda for Europe-A Europe 2020 Initiative, *Europeana-A European Digital Library for all*, 2015, [online]. Available at < <https://ec.europa.eu/digital-agenda/en/europeana-european-digital-library-all>> [Accessed September 19, 2015].

Digital Agenda for Europe-A Europe 2020 Initiative, *Connecting Europe Facility*, 2016, [online]. Available at < <https://ec.europa.eu/digital-agenda/connecting-europe-facility>> [Accessed January 17, 2016].

Digital Agenda for Europe-A Europe 2020 Initiative, *Memorandum of Understanding*, 2015, [online]. Available at < <https://ec.europa.eu/digital-agenda/en/copyright-material>> [Accessed September 19, 2015].

EUR-Lex, Access to European Union Law, *eContentplus (2005-2008)*, 2016, [online]. Available at < <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:l24226g>> [Accessed January 12, 2016].

EUR-Lex, Access to European Union Law, *i2010: Information Society and the media working towards growth and jobs*, 2016, [online]. Available at < <http://eur-lex.europa.eu/legal-content/GA/TXT/?uri=uriserv:c11328>> [Accessed January 13, 2016].

Europeana Data Exchange Agreement, 2016, [online]. Available at < http://pro.europeana.eu/files/Europeana_Professional/DEA/Data%20Exchange%20Agreement.pdf> [Accessed January 17, 2016].

Europeana Pro, *The Data Exchange Agreement*, 2016, [online]. Available at < <http://pro.europeana.eu/page/the-data-exchange-agreement>> [Accessed January 17, 2016].

Europeana Strategic Plan 2011-2015, 2016 [online]. Available at < [http://pro.europeana.eu/files/Europeana_Professional/Publications/Strategic%20Plan%202011-2015%20\(colour\).pdf](http://pro.europeana.eu/files/Europeana_Professional/Publications/Strategic%20Plan%202011-2015%20(colour).pdf)> [Accessed January 17, 2016].

European Commission, *Copyright: Commission brokers agreement to increase the number of out-of-commerce books being made available again*, 2015, [online]. Available at < http://europa.eu/rapid/press-release_IP-11-1055_en.htm?locale=en> [Accessed September 19, 2015].

European Commission, *Memorandum of Understanding (MoU) on Key Principles on the Digitization and Making Available of Out-of-Commerce Works – Frequently Asked Questions*, 2015, [online]. Available at < http://europa.eu/rapid/press-release_MEMO-11-619_en.htm> [Accessed September 18, 2015].

European Judicial Network in civil and commercial matters, *Glossary*, 2016, [online]. Available at http://ec.europa.eu/civiljustice/glossary/glossary_en.htm> [Accessed January 10, 2016].

European Union: European Commission, *Communication from the Commission on Copyright in the Knowledge Economy*, 19 October 2009, COM [2009] 532 final. Available at <http://ec.europa.eu/internal_market/copyright/docs/copyright-info/20091019_532_en.pdf> [Accessed January 20, 2016].

European Union: European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions, Towards a modern, more European copyright framework*, 9 December 2015, COM [2015] 626 final. Available at < [file:///C:/Users/user/Downloads/CommunicationTowardsamodernmoreEuropeancopyrightframework%20\(2\).pdf](file:///C:/Users/user/Downloads/CommunicationTowardsamodernmoreEuropeancopyrightframework%20(2).pdf)> [Accessed January 27, 2016].

EU Observatory, *Orphan Works Database*, 2015, [online]. Available at <<https://oami.europa.eu/ohimportal/en/web/observatory/orphan-works-database>> [Accessed September 8, 2015].

Ginsburg J. C., *Contracts, Orphan Works, and Copyright Norms: What Role for Berne and TRIPS?* in: *Working within the Boundaries of Intellectual Property-Innovation Policy for the Knowledge Society*. Oxford University Press, 2010.

Hellenic Copyright Organization, *Orphan Works*, 2015, [online]. Available at <<http://www.opi.gr/index.php/en/general-information-on-copyright/orphan-works>> [Accessed September 12, 2015].

Hennessy K., Cultural Heritage on the web: applied digital visual anthropology and local cultural property rights discourse, *International Journal of Cultural Property*, 2012, vol.19 (3), pp345-369 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744d0640000014fe7db6513520d5ad0&docguid=I6D4A9F9053D611E2ABDFBCFE1E7CF3C2&hitguid=I6D4A9F9053D611E2ABDFBCFE1E7CF3C2&rank=29&spos=29&epos=29&td=107&crumb-action=append&context=17&resolvein=true>> [Accessed at 10 September 2015].

IFLA, *Guidelines for Digitization projects for collections and holdings in the public domain, particularly those held by libraries and archives*, 2015, [online]. Available at <<http://www.ifla.org/files/assets/preservation-and-conservation/publications/digitization-projects-guidelines.pdf>> [Accessed at 20 September 2015].

IFLA, *Guidelines for Planning the Digitization of Rare Book and Manuscript Collections*, 2015, [online]. Available at <<http://www.ifla.org/publications/node/8968>> [Accessed at 19 September 2015].

Intellectual Property Watch, *Digitization Projects for Orphan and Out-Of-Commerce Works Presented at WIPO*, 2015, [online]. Available at <<http://www.ip-watch.org/2014/05/06/digitisation-projects-for-orphan-and-out-of-commerce-works-presented-at-wipo/>> [Accessed at 19 September 2015].

Kalay Y.E., Kvan T., Affleck J. (eds), *New Heritage-New Media and Cultural Heritage*. Routledge 2008, London-New York.

Kendall M., The copyright problems of orphan works for university lecturers and researchers, *Legal Information Management*, 2010, vol. 10(3), pp 158-161 [online].

Available at <

<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=i0ad69f8e0000014df42e23dbf0d8278e&docguid=I39093540F38C11DFA9A39D66D3039CAE&hitguid=I39093540F38C11DFA9A39D66D3039CAE&rank=21&spos=21&epos=21&td=286&crumb-action=append&context=18&resolvein=true>> [Accessed at 11 September 2015].

Klass N., Rupp H., Europeana, ARROW and orphan works: bringing Europe's cultural heritage online in: *EU Copyright Law: A Commentary*. Edward Edgar Publishing 2014, UK-USA.

Koumantos G., Stamatoudi I., *Greek Copyright Law*. Sakkoulas Publications 2014, Athens-Thessaloniki.

McBride J., The Effect of Orphan Works on Music Libraries: The 2005 U. S. Copyright Office Roundtables, *Notes, Second Series*, 2006, vol. 63(1), pp 67-78 [online]. Available at <
http://www.jstor.org/stable/4487720?Search=yes&resultItemClick=true&searchText=orphan&searchText=works&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Dorphan%2Bworks%26amp%3Bacc%3Don%26amp%3Bwc%3Don%26amp%3Bfc%3Doff%26amp%3Bgroup%3Dnone&seq=1#page_scan_tab_contents> [Accessed at 1 September 2015].

McDonald L. (ed), *Digital Heritage: Applying Digital Imaging to Cultural Heritage*. Elsevier Butterworth-Heinemann 2006.

National Book Centre, *Digitized Greek Journals*, 2016, [online]. Available at <
<http://www.ekebi.gr/frontoffice/portal.asp?cpage=node&cnode=488>> [Accessed at 20 January 2016].

National Library of Scotland, *Digital Library*, 2016, [online]. Available at <
<http://digital.nls.uk/gallery.cfm>> [Accessed at 12 January 2016].

NISO, Digital Preservation Metadata Standards, *ISQ-Information Standards Quarterly*, 2010, vol. 22, issue 2, [online]. Available at
<https://www.loc.gov/standards/premis/FE_Dappert_Enders_MetadataStds_isqv22no2.pdf> [Accessed at 25 January 2016].

NISO, *Understanding Metadata of 2004*, 2016 [online]. Available at
<<http://www.niso.org/publications/press/UnderstandingMetadata.pdf>> [Accessed at 25 January 2016].

Ross A., Hansson S., Legislative Comment, Orphan Works Regulations come into force, *Entertainment Law Review*, 2015, vol. 26(1), pp 11-12 [online]. Available at <
<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=i0ad629030000014df4268bc8a9711a3c&docguid=I913E51D07A8F11E4B2E2A77F81BC11E2&hitguid=I913E51D07A8F11E4B2E2A77F81BC11E2&rank=3&spos=3&epos=3&td=286&crumb-action=append&context=14&resolvein=true>> [Accessed at 8 September 2015].

Ross A., Orphan works-the law's in place; now here's the process, *Entertainment Law Review*, 2015, vol. 26(2), pp 40-43 [online]. Available at <
<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744cc640000014df41e9c0f669c2753&docguid=I335985D0B0BD11E4A2E2827129CC60F8&hitguid=I335985D0B0BD11E4A2E2827129CC60F8&rank=2&spos=2&epos=2&td=286&crumb-action=append&context=12&resolvein=true>> [Accessed at 15 September 2015].

Roy A., Foister S., Rudenstine A., Conservation Documentation in Digital Form: A Continuing Dialogue about the Issues, *Studies in Conservation*, 2007, vol.52 (4), pp315-317 [online]. Available at <http://www.jstor.org/stable/20619519?seq=1&Search=yes&resultItemClick=true&searchText=digitization&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Ddigitization%2B%26amp%3Bprq%3Ddigitization%2Bof%2Bcultural%2Bheritage%26amp%3Bgroup%3Dnone%26amp%3Bfc%3Doff%26amp%3Bhp%3D25%26amp%3Bacc%3Don%26amp%3Bso%3Drel%26amp%3Bwc%3Don#page_scan_tab_contents> [Accessed at 20 September 2015].

Schulze E., F., Orphan works and other orphan material under national, regional and international law: analysis, proposals and solutions, *European Intellectual Property Review*, 2012, vol. 34(5), pp 313-323 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=i0ad69f8e0000014df429e8cb75dbfa29&docguid=I18D2D65087B011E1BF2ED535FDE7B006&hitguid=I18D2D65087B011E1BF2ED535FDE7B006&rank=9&spos=9&epos=9&td=286&crumb-action=append&context=16&resolvein=true>> [Accessed at 10 September 2015].

Schwartz E.J., Williams M., Access to orphan works: Copyright Law, Preservation and Politics, *Cinema Journal*, 2007, vol. 46(2), pp 139-145 [online]. Available at <http://www.jstor.org/stable/4137188?Search=yes&resultItemClick=true&searchText=orphan&searchText=works&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Dorphan%2Bworks%26amp%3Bacc%3Don%26amp%3Bwc%3Don%26amp%3Bfc%3Doff%26amp%3Bgroup%3Dnone&seq=1#page_scan_tab_contents> [Accessed at 15 September 2015].

Sitas A., Digitization of Material and creation of digital databases, *Modern Library & Information Services*, 2002, vol.14, pp19-26.

Smithsonian National Museum of National History, *Panoramic Virtual Tour*, 2016. [online]. Available at <<http://www.mnh.si.edu/panoramas/>> [Accessed at 2 January 2016].

Stamatoudi I., *Copyright and Related rights*. International Hellenic University 2015, Thessaloniki.

Stamatoudi I., Koumantos G., *Greek Copyright Law*. Sakkoulas Editions 2014, Athens-Thessaloniki.

Streible D., The Role of Orphan Films in the 21st Century Archive, *Cinema Journal*, 2007, vol. 46(3), pp 124-128 [online]. Available at <<http://www.jstor.org/stable/4487720?Search=yes&resultItemClick=true&searchText=orphan&searchText=works&searchUri=%2Faction%2FdoBasicSearch%3FQuery%3Dorphan%2Bworks%26amp%3Bacc%3Don%26amp%3Bwc%3Don%26amp%3Bfc%3Doff%26>>

[amp%3Bgroup%3Dnone&seq=1#page_scan_tab_contents](#)> [Accessed at 1 September 2015].

Suthersanen U., Frabboni M. M., *The Orphan Works Directive in: EU Copyright Law: A Commentary*. Edward Edgar Publishing 2014, UK-USA.

Synodinou T. E., E-books, a new page in the history of copyright law?, *European Intellectual Property Review*, 2013, vol.35 (4), pp220-227 [online]. Available at <<http://login.westlaw.co.uk/maf/wluk/app/document?&srguid=ia744d0640000014fe7db6513520d5ad0&docguid=ID522858086DD11E289718902E14A9079&hitguid=ID522858086DD11E289718902E14A9079&rank=43&spos=43&epos=43&td=107&crumb-action=append&context=21&resolvein=true>> [Accessed at 19 September 2015].

The Acropolis Museum, *Images for Private Use*, 2016,[online]. Available at <<http://www.theacropolismuseum.gr/el/eikones-erasitexnikh-xrhsh>> [Accessible at 2 January 2016].

The Metropolitan Museum of Art, *The collection online*, 2016, [online]. Available at <<http://www.metmuseum.org/collection/the-collection-online>> [Accessible at 4 January 2016].

TLG-Thesaurus Linguae Graecae, *A Digital Library of Greek Literature*, 2016,[online]. Available at <<http://stephanus.tlg.uci.edu/>> [Accessible at 19 January 2016].

Towse R, Handke C. (eds), *Handbook on the Digital Creative Economy*. Edward Edgar Publishing 2013, UK-USA.