

SURVEY OF PRIVATE COPYRIGHT DOCUMENTATION SYSTEMS AND PRACTICES

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Table of Contents

prepared by	1
Survey of Private Copyright Documentation Systems and Practices	4
1. Introductory Remarks about Private Registries and Documentation Systems	5
2. Setting the Stage	7
2.1. Preliminary Notes on Copyright Registration and Incentives	8
2.1.1. Different Kind of Formalities	8
2.1.2. Public Copyright Registries and Legal Presumptions	10
2.1.3. Public Copyright Registries and Procedural Advantages	10
2.1.4. Legal deposit	11
2.2. Enabling Technologies	11
2.2.1. Identity Certification	12
2.2.2. Digital Fingerprints and Hash-Codes	13
2.2.3. Trusted Timestamping	13
2.2.4. Non-Repudiation	13
2.3. Emerging De Facto Licensing Standards	15
2.4. Registry and Archive Interoperability	18
3. Private Copyright Registries	18
3.1. General Purpose Registries	19
Annex I reviews some of these registries:	21
3.2. Specialized/Sectoral Registries	23
4. Private Documentation Systems	24
4.1. Platforms Including Documentation Systems	27
4.2. Meta-Documentation Projects	29
Notes about the table:	34
5. Emerging Trends	35
5.1. Private Copyright Registries as a Growing Phenomenon	35
5.2. Private Copyright Registries as an Engine of Innovation	37
5.3. Further Prospective Innovation	40
5.4. Can Private Registries Compete with Public Ones?	41
6. Private Registries as Public Goods	43
7. Summing Up	45
Annex I – Private Copyright Registries and Documentation Systems	48
General Purpose Registries	48
MYOWS (http://myows.com/)	48
Numly (http://www.numly.com/)	49

Copyright Deposit (http://www.copyrightdeposit.com/)	50
MyFreeCopyright (http://myfreecopyright.com/)	51
Copyright Registration Service (http://www.copyrightregistrationservice.com)	51
Patamu (http://www.patamu.com/).....	52
General Purpose, Commons Oriented Registries	53
Safe Creative (http://www.safecreative.org)	53
Registered Commons (http://www.registeredcommons.org/)	54
CreativDepot (http://www.creativdepot.at/)	56
Specialized/Sectoral Registries.....	56
Writers Guild Of America, West Registry (http://www.wgawregistry.org/)	56
FRAPA Format Registry (http://www.frapa.org/format-registry/)	57
Songrite (http://www.songrite.com).....	58
Photographer Registry (http://www.photographerregistry.com/).....	59
<i>Photographer Registry</i> is a joint effort of different photographers associations of the United States.....	59
C-Registry (http://www.c-registry.us/).....	60
Private Documentation Systems	61
Open Library (http://openlibrary.org).....	61
WorldCat Copyright Evidence Registry (http://www.worldcat.org/copyrightevidence/registry)	61
Platforms Including Documentation Systems	62
Flickr (http://www.flickr.com/).....	62
Jamendo (http://www.jamendo.com)	64
Google Books (http://books.google.com/)	65
Google Book Rights Registry	67
Meta-Documentation Projects	68
Creative Commons (http://www.creativecommons.org)	68
PLUS (http://www.useplus.com/)	69

Survey of Private Copyright Documentation Systems and Practices

Private copyright registration and documentation systems around the world arguably constitute the largest pool of information concerning copyright and related rights. Undoubtedly, these same systems provide the greatest online free access of the same pool of information.

Private copyright registration systems collect, store, and manage relevant data as provided by registrants. Traditionally, public registries contain data related to the works, the authorship, and the rights of ownership; and, can often serve as reliable evidence to be used in a trial by right-holders. Using a wide array of technological tools, private registries systematically collect such data and other relevant information to offer guarantees related to the time of registration, the characteristics of the registered works and the identity of the registrant (with a higher or lower degree of trust). Most registries make this information (or at least a subset of it) available to the public.

Similarly, a vast amount of copyright-related information is collected and made available by several diverse online platforms. However, the majority of these platforms do not focus their activities on making copyright-related information available. Instead, their core business is related to collecting content, facilitating content-creation, and/or making content available online. For example, one platform focuses on collecting user-generated (but also professionally-produced) pictures, helping users make these photos available online (to everyone or only to friends), and enabling various ways for users to organize their collections and gather peer comments of their works. As an additional service, some platforms offer copyright documentation systems—not to provide a form of reliable evidence—but to provide simple information “as is” (such as, the date of creation declared by the person who uploaded the content, his/her nickname, and possibly a contact form).

Private copyright registration systems could play an important role in the copyright ecosystem beyond their direct evidentiary function in litigation cases. By making available information related to existing creative material and its licensing conditions, these systems could enable the production, the re-use, and the distribution of creative material in the digital environment. Their role is more evident when considering the majority of private copyright registries allow for the association of public licenses to one's works. For instance, a *de facto* standard in this domain is provided by Creative Commons, a non-profit, U.S.-based organization that offers free permissive copyright licenses to allow creators to mark their works (before making them publicly available) with a range of permissions granted to all others. This “some rights reserved” licensing model reduces the transaction costs entailed by ex-post negotiations because “permission has already been granted” for several uses. Creative Commons licenses have already been applied to hundreds of millions of creative works, typically those directly

distributed online by their creators.¹ In this context, copyright registries are not only a tool for creators who want to be able to enforce their rights (which they reserved to themselves); but also a tool for re-users who want to rely on an open license to build derivative works. In the latter perspective, a copyright registration system may offer important guarantees regarding the identity of the licensor and provide third-party proof of his/her decision to associate an open license to the work.

Although private *documentation* (as opposed to *registration*) systems can rarely provide reliable evidence to be used in courts of law; they do, however, document information that is relevant to prospective users of creative content. For example, they could provide the most convenient way of finding a right-holder (clearly an important piece of information for potential licensees). Additionally, if any of the many “orphan works bills” proposed in various countries were finally approved, these systems would become a strategic resource, since copyright-related documentation could be especially important to potential users conducting diligent searches.

1. Introductory Remarks about Private Registries and Documentation Systems

In recent years, a number of private companies such as Copyright Deposit and Safe Creative have developed unique copyright registries based on some of the operational principles of the public ones. Often, these private registries have even introduced significant innovations especially to technological solutions. A typical difference from public registries is that private registries allow deposits of a wide range of formats (in most cases, any digital file can be registered). Another difference is that private registries make available bar-codes or other special identifiers, such as a permanent URI (Internet addresses) to identify a work. Other forms of innovation and differences relate to the integration with other services ranging from consultancy to monitoring and passing through synergies with social platforms and online communities. As a matter of fact, private registration systems often work entirely in a digital environment while several traditional public systems still work only or mostly using analogue channels. This digital environment enables private registration systems to provide very fast (frequently real-time) registration.

The lower level of formality requirements could be seen as yet another advantage of private registries; with related benefits such as the aforementioned possibility of completely online and quasi-instantaneous registration. This peculiarity, however, may raise concerns regarding the absence of any scrutiny before registration. For instance, almost all the private registries analyzed within this study

1 See the CC Monitor project. According to the estimates available on <http://monitor.creativecommons.org/> (last visited on July 15, 2011), in May 2010 more than 185 millions objects had been licensed under the terms of a Creative Commons license.

would likely register any obviously non-creative work and issue a registration certificate (sometimes called a “copyright certificate” or similar) and a registration number, etc. In fact, from a technical point of view the registration would be seen as completed.²

Additional concerns of private registries relate to the lack of strong guarantees to ensure the maintenance of the pool of registered works and its preservation over time. Meaning, private registration entails a higher risk of information being lost. But as this study will show, although this criticism may have some basis, it is possible to take measures to reduce this kind of risk.³

This study analyzed the various characteristics of private registration systems including the overall structure and management of the service, the registration procedures (e.g. digital vs. analogue), registration costs, the objective and the kind of contents held/registered (e.g. categories of creative works which can be registered, available licensing conditions), the possibility to edit and update registered information, and the accessibility of registered information for the public or specific third-parties (under which conditions and at which cost).

Annex I of this study includes the synthetic description, one by one, of an extensive (but not exhaustive) list of copyright registration and copyright documentation systems. The methodology adopted to draft this list included: (i) a systematic search based on various keywords (such as “copyright registration”, “copyright and registration”, “copyright registration and online”, “copyright service”, “copyright registration and creative commons”, “fast/quick”, “copyright and evidence”, and many others) using the major search engines; (ii) an additional search based on a combination of keywords and of the names of two or more of the already identified services (which also led to the identification of some articles and blog-posts discussing other documentation services); (iii) the analysis of various presentations given at international conferences or other meetings and workshops (such as, the Creative Commons Technology Summits which frequently discussed private copyright registration); and finally (iv) informal requests to the authors’ network of colleagues and also to some related mailing lists. The evidence collected through the various above mentioned methods mostly overlapped and seemed to confirm the relevance of the results. Interestingly, all the aforementioned techniques returned a common subset of registries: Safe Creative, Registered Commons, Copyright Deposit, and Numly. Within the set described in Annex I, these registries are also the ones with the highest “Page Rank” and the highest number of links on the Web.

2 However, preliminary scrutiny may be very limited also in the case of public registries, so one may dispute that this aspect constitutes a specific drawback of private registration.

3 See footnote and the accompanying text.

Despite being based on an extensive survey, the list of reviewed services should not be considered as exhaustive. Indeed, it is intentionally non-exhaustive since the last ten years (and in particular, the last five years) saw a flourishing of new private registration systems, many of which never “took off” (as confirmed by the date of the last updates or news on their websites).

It is important to note, this survey focuses mainly on services which offer their own copyright registration and/or documentations systems. As a result, this survey does not cover services which help creators to secure copyright registration through the filing of works within a public copyright office such as the U.S. Copyright Office.⁴ Examples of these excluded services⁵ include Click&Copyright,⁶ DirectLegal,⁷ GoCopyright⁸ and LegalZoom.⁹ To quickly summarize, these services collect the relevant information, mostly through online procedures and questionnaires, and follow the applicant along the registration process by offering assistance and consultancy services (depending on the service and/or specific offer).

2. Setting the Stage

This section of the study introduces multidisciplinary technicalities which provide a better understanding of the services offered by online private copyright registries.

The first subsection, § 2.1. *Preliminary Notes on Copyright Registration and Incentives*, provides some introductory legal and economic remarks, which will be used in the following parts of the survey. The second subsection, § 2.2. *Enabling Technologies*, is mainly technical and provides an overview of various techniques used to certify either the identity of right-holders, the characteristics of works, or the time of relevant actions such as registration. The third subsection, § 2.3. *Emerging De Facto*

4 These services are especially widespread in the US or, in any case, with respect to registration of copyright in the US. This is arguably due to the relevant advantages that public copyright registration offers in the US legal system (see, for instance, J. C. Ginsburg, *The US Experience with Copyright Formalities: A Love/Hate Relationship*, Columbia Journal of Law and the Arts, Vol. 33 No. IV 2010; S. van Gompel, *Formalities in the digital era: an obstacle or opportunity?*, in *Global Copyright: Three Hundred Years Since the Statute of Anne, from 1709 to Cyberspace*, L. Bently, U. Suthersanen & P. Torremans (eds), Cheltenham: Edward Elgar 2010, p. 395-424; J. Tehranian, *The Emperor Has No Copyright: Registration, Cultural Hierarchy and the Myth of American Copyright Militancy*, Berkeley Technology Law Journal, Vol. 24, No. 4, 2009, 1397-1457, available at SSRN: <http://ssrn.com/abstract=1558981>).

5 This list is a by-product of the online searches that were performed in order to find private registries and copyright documentation systems as described above.

6 See <http://www.clickandcopyright.com/>.

7 See <http://www.directlegal.com/>.

8 See <http://gocopyright.com/>.

9 See <http://www.legalzoom.com/>.

Licensing Standards, briefly discusses some emerging *de facto* legal standards related to the licensing choices of right-holders. The last subsection, § 2.4. *Registry and Archive Interoperability*, provides insights related to the opportunities and difficulties of combining copyright-related and similar pieces of information from different sources.

2.1. *Preliminary Notes on Copyright Registration and Incentives*

It has been an inherent challenge to any copyright system to simultaneously foster creation and the dissemination of original creative expressions. The evolution of copyright history has led to a tendency to grant copyright protection upon minimally original manifestations of the human mind. In this context, procedures that constitute conditions to the existence, the ownership, the claim or the assignment of works protected by copyright, usually known as formalities, have been regarded as obstacles to the encouragement and rewarding of individual creativity, and therefore were minimized – if not completely excluded – as new copyright legislation entered into force. The goal of avoiding any discrimination between national and foreign authors reinforced this trend.

According to the *Berne Convention*, the enjoyment and the exercise of the author's rights shall not be subject to any formality, even if there is no protection guaranteed in the country of origin of the work. Nevertheless, domestic rules of evidence or procedure applicable to some court proceedings, specifically when concerning *who* is entitled to claim the ownership of a copyrighted work, were accepted and understood to be in line with the Convention.¹⁰

2.1.1. *Different Kind of Formalities*

Formalities that survived legislative and jurisprudential evolution have served a variety of purposes to the practical enforcement of copyrights, providing legal security and procedural incentives for authors who supply relevant information to public registries. Formalities also translate into a filter for setting apart works which are intended for commercial exploitation from those which are unpretentious expressions suited to enrich the public domain.¹¹ These formalities can be classified according to the role they perform in the system, their nature and their legal effects.

Constitutive Formalities

This kind of formality provides the public with a clear indication of copyright-protectable content,

10 We remand to the *WIPO Second Survey on Voluntary Registration and Deposit Systems* (available at http://www.wipo.int/copyright/en/registration/registration_and_deposit_system_03_10.html) for an extensive description of various national settings (see, in particular, the answers to questions number 10 and 11).

11 J.C. Ginsburg, *The US Experience with Copyright Formalities: A Love/Hate Relationship*, *Columbia Journal of Law and the Arts*, Vol. 33 No. IV, 2010, 2.

helping to define and identify what requires protection. This implies that while authors are required to fulfill a formality before their works are effectively protected, they are also obliged to make an initial judgment of whether or not their creations are sufficiently commercially valuable to warrant protection.¹² The substantive requirements for protection may be still verified by national courts, but these formalities, such as registration and legal deposit, are demanded before an author can proceed to exercise his/her rights. For instance, in Argentina, the registration of the work is still compulsory for the efficacy of economic rights regarding national works.

Renewal Formalities

This requirement demands that authors renew the registration after a number of years, forcing the reassessment of costs *versus* benefits of the registration procedure compared to the extension of copyright protection. The underlying rationale here is that after a period, works that were commercially viable cease to do so and continuing the copyright protection after that point impoverishes the public domain with little countervailing benefit to the author.¹³ For instance, in the U.S. between 1883 and 1964, the copyright term could be extended (doubled) filing for renewal.

Specifying Formalities

This formality refers to certain aspects of copyright usually pertinent to a specific category or use of the work, regarded by a “notice of reservation of rights”. This notice describes, for example, the circumstances under which articles in periodicals may be reproduced without the authorization of the author or publisher, or inform that public performances of a musical composition or play retain copyright protection. Legislation in Austria (but similar provisions apply in Italy and many other countries) provides for the reproduction and distribution – without previous consent – of published articles on economic, political, religious or contemporary matters in other periodicals unless there is a notice of reservation of rights on the footnote of the work or in the heading of the publication.

Declarative Formalities

These kind of formalities provide for evidentiary functions that enable authors to establish *prima facie* proof of authorship/ownership of copyright. They might contribute, thus, to alleviate right clearance problems such as those of creations with no identifiable author (“orphan works”) and to provide more legal certainty, specifically where the anteriority of authorship or the priority of a claim to the title must be resolved. The timely accomplishment of declarative formalities, particularly registration, enhances

¹² *Idem*, 11.

¹³ J. Gibson, *Once and Future Copyright*, Notre Dame Law Review, Vol. 81, 2005, 167-244 (available at <http://ssrn.com/abstract=740486>), 226.

legal security, even if courts are allowed a discretionary assessment of the weight of the evidence implied. Hence, the lawful fulfilment of registration or notice requirements by authors is often rewarded through civil remedies, and other procedural advantages, which are further explained in the following paragraphs.

2.1.2. Public Copyright Registries and Legal Presumptions

Although *Berne Convention* members cannot make the existence or enforcement of copyright subject to any formality, registration systems may provide for the legal presumption of validity of the copyright ownership. In the U.K., even though there is not a central registration system, private registry services, professional associations, and authors' unions offer means to produce independent evidence of the existence of a work and its content. In the U.S., registration within five years of the first publication of a work constitutes *prima facie* evidence of the validity of the copyright and the facts contained in the certificate of registration, such as authorship, ownership and date of publication. Also in Mexico there is a legal presumption that the statements contained in an official registry certificate are certain, except in cases where proof on the contrary is provided.

2.1.3. Public Copyright Registries and Procedural Advantages

Registration and the inherent presumption of validity referred to above also derives in some cases in procedural advantages, such as the shift in the the burden of proof to the defendant in a claim of infringement. In these cases, only if the defendant proves that he/she was not aware of the copyright and had no reasonable ground for suspecting that copyright subsisted in the work, then he/she can claim to be innocent. However, a certificate of registration implies the legal presumption that anyone should have knowledge of the existence of the copyright and can only try to produce evidence on the invalidity or the falsity of the registration.

In countries such as Australia and Japan (and, upon performance of a certain number of additional formalities, in China as well), the presumption of ownership would also be awarded to foreign registries.

In Argentina, the legislation provides with respect to cinematographic and photographic works that the date, place of publication, name or symbol of the author or publisher must be recorded. The absence of this requirement will result in the impossibility for right-holders to file criminal actions in case of unauthorized reproduction of such works.

Other advantages are with regard to civil remedies and/or statutory damages. These allow registered right-holders to a minimum amount of compensation without the burden of proving actual monetary loss in an infringement suit. In Canada, for instance, the plaintiff can choose to receive either prescribed statutory damages (within the courts discretion) or damages based on his/her losses or the

defendant's profits from the infringement. In the U.S., statutory damages and attorney's fees may be awarded only if timely registration has been performed; if not, only an award of actual damages and profits will be available to the right holder. Also, recording a registration with the U.S. Customs Service additionally provides protection against any importation of pirated copies into the country.

2.1.4. Legal deposit

In many countries, national laws provide that publishers of printed works – whether they are individuals or legal persons – are required to deposit or file one or more of these publications, whatever the format they present, in certain libraries or archives with the primary purpose of collecting and preserving the results of intellectual production that takes place in the country. The deposit may be made directly to those libraries and archives or through the National Registry of Copyright or other official agencies. However, although these kinds of measures are in some cases included in copyright laws and compliance can be imposed by administrative or enforcement actions, the legal deposit provisions are not really about copyright but requirements for the administration and preservation of culture.

For instance, countries where legal deposit requirements are embedded in legal provisions governing copyright registration include Italy, Dominican Republic and the U.K. In other countries, both obligations (legal deposit and registration) are provided for in the same legislation although legal deposit does not amount to copyright registration. For instance, in Costa Rica, the legal deposit must be made on the one hand, in a number of universities, the National Library, and different other archives, and on the other hand, in the respective copyright agency: the National Registry of Copyrights and Related Rights. While in Argentina, the legislation differentiates between the copies for the purpose of the legal deposit (one to the National Library, one at the Library of Congress, and the third to the General Archive of the Nation), and the copy to the Registry of Intellectual Property for the purpose of copyright registration, even when all copies are filed with the latter. In countries like Germany, Belgium, Canada, Japan, and Nigeria, the legal deposit is contemplated within the laws governing national libraries.

It is worth noting that that legal deposit, although it does not have the effect of copyright registration, may still serve as evidence in copyright claims or actions for plagiarism and other proceedings, such as those related to verify the fact of publication and the assumptions derived from Article 15 of the *Berne Convention*, or the year of publication, and generally who is credited with the ownership of rights in the work or publication.

2.2. Enabling Technologies

Generally three basic elements play a relevant role in copyright litigation and negotiations: (i) the

identity of the author, (ii) the identity of the work, and (iii) the time of creation. The following paragraphs provide an introduction to the technical counterparts of these basic concepts.

2.2.1. Identity Certification

In the analogue world, an author can easily prove his/her identity to a copyright registry by, for example, showing an identity card. At the moment, doing the same online is more challenging, especially when involving cross-border interactions, since there may be a certain degree of legal uncertainty about the validity of some identity certificates in a foreign country. In other cases, the problem may simply consist in the lack of technical interoperability.

The lowest level of online identity verification is to check whether an author has access to the email he/she used to register for the service. This can easily be done by sending a verification code to the email address. However, since opening an email account does not require any kind of reliable identification, this level of trust is basically the equivalent to having no identity verification at all. If and when, a service is paid using a credit card or similar payment method, the data of the payment tool could provide some reliable information regarding the identity of the registrant. However, extracting this information for purposes other than managing the payment transaction is a highly disputable practice. Moreover, some registration services are free and to require a credit card number to register would probably deter many users from ever trying the service.

To illustrate the various levels of "identity certification", Safe Creative¹⁴ uses the following:

1. email address (with verification code);
2. No. 1 (above) plus basic (unverified) contact information (e.g. postal address and telephone number);
3. use of an international identity certificate (issued by a specialized company¹⁵);
4. use of a digital identity certificate issued by a public administration.¹⁶

An alternative (or a complementary approach) to the use of traditional corporate-issued certificates is practiced by Registered Commons who uses the Web of Trust service from CAcert. CAcert is a non-profit association that manages a community-driven certificate authority.¹⁷

14 For more information about Safe Creative, see page 53.

15 In July 2011, Safe Creative accepted just the certificates issued by Verisign (see <http://www.verisign.com/authentication/digital-id/index.html>).

16 As of July 2011, Safe Creative accepted just the DNI-e issued by the Ministry of Internal Affairs of Spain and the FNMT certificate issued by the Ministry of Economy and Finance of Spain.

17 See <http://www.cacert.org/> and <http://wiki.cacert.org/> (last visited on July 15, 2011) for additional details.

2.2.2. Digital Fingerprints and Hash-Codes

A digital fingerprint or hash-code (also known as checksums) is a string of digits that uniquely identify a file. As with fingerprints of people, it should be *de facto* impossible that two different files share the same fingerprint. In practice, a complex mathematical formula ensures this uniqueness. Additionally, a digital fingerprint is very easy to store as compared to the actual file to which it is associated with.¹⁸ Moreover, a procedure can check whether a given file matches a specific fingerprint. In other words, like human fingerprints, digital fingerprints may be used to identify an entity (for this study purposes, a digital file) in a convenient way.

There are several different kinds of hash-codes depending on the mathematical function used to generate the digital fingerprint. The most popular and widely used hash-code is called MD-5. Another example of cryptographic hash functions is SHA-2.

2.2.3. Trusted Timestamping

A timestamp is a sequence of characters denoting the date and time at which a certain event was registered in a system. Trusted timestamping is a process that securely keeps track of timestamps. For this process, “securely” means that (ideally) no one should be able to alter the information of the recorded timestamp. Specifically, the person who triggered the creation of the timestamp (e.g. the user that uploaded the document) should not be able to compromise the integrity of the trusted timestamp. In practice, third-parties can verify that a given file was *not created after* the date of the trusted timestamp (when there is proof that the file was actually uploaded to the service).

Timestamps are crucial in the field of copyright documentation systems since the easiest way to prove authorship is to prove priority as far as the time of creation is concerned. Since creation itself is very difficult to prove, proving possession of a copy of a work at a given time is the usual proxy for the time of creation. In other words, the most ancient owner of a copy of a given work is likely to be the original creator of the work (or at least, this is a reasonable presumption that is usually difficult to rebut).

2.2.4. Non-Repudiation

Non-repudiation refers to a system where the maker of a statement will not be able to deny the statement (or contract).¹⁹ In other words, non-repudiation is a characteristic of systems where a party

18 Notice that if a services only stores the hash-code of the file rather than the actual file, users should be aware of the fact that the checksum will become meaningless unless a copy of the work exactly as it was submitted to the service is available. In fact, one can check that a given file has a certain hash-code, but cannot recreate a file from its hash-code. Moreover, even the smallest modification to a file would trigger a change in its hash-code, so that an exact copy of the registered work should be kept available.

19 See also <http://en.wikipedia.org/wiki/Non-repudiation>.

cannot refute the validity of its own statements. The term “statement” should be understood in a broad sense including actions which automatically trigger the production of a statement, such as uploading a file using a certain user account or checking certain boxes describing the file itself.

In the analogue world, signing a contract is a typical act that one should not be able to repudiate. In this environment, non-repudiation is ensured by autograph signatures which can further be supported by testimonies and/or public notaries. Essentially, a notary certifies to the identity of a person who appears before him/her and that said person did in fact sign a certain document. In some cases, the notary will certify to the characteristics of objects mentioned in the document itself (e.g., a reference to official registries) and/or accept the deposit of important documents (e.g., a will or a creative work). Technologies, on the other hand, help the digital world to precisely identify the characteristics of the statements or facts to be certified. For example, digital fingerprints (and hash-codes, etc.) help to conveniently keep track of the objects of the statement (e.g., a given file embedding a creative work). Additionally, timestamps help to prove the exact time at which a statement was issued. Similarly to how public notaries are neutral third-parties in regard to a person signing a contract before them, these services and the common characteristics of the concepts described in § 2.2. *Enabling Technologies* could be better provided (i.e., with higher credibility) by independent third-parties.²⁰

In the event of disputes, a non-repudiation system is a useful tool to the creator who timely registered his/her work because it can provide *prima facie* evidence of ownership. Additionally, since these services keep track of licensing choices including the use of permissive public copyright licenses (e.g., any of the Creative Commons licenses), non-repudiation is also a guarantee for creators who want to rely on the association between a work and a certain license. Some registries, such as Safe Creative, even provide specific certificates which can be issued to any third-party and includes a declaration of the license associated to the work (identified by its hash-code) at the date of the request.

Despite the existence of some anecdotal evidence related to the use of private registration systems to prove (*rectius*: providing persuasive *prima facie* evidence) copyright ownership and even to challenge public registration,²¹ the authors are not aware of any private copyright registration system tested in

20 For a discussion of non-repudiation copyright services, see <http://www.plagiarismtoday.com/2008/12/03/is-copyright-non-repudiation-worthwhile/>. For a general discussion of non-repudiation services, see: <http://en.wikipedia.org/wiki/Non-repudiation>.

21 See, for instance, the blog-post from Safe Creative's Mario Pena, “Testimony of practical use to register on Safe Creative” (available at <http://en.safecreative.net/2010/02/08/testimony-of-practical-use-to-register-on-safe-creative/>, last visited on June 20, 2011). A novelist (“Misk”) reported that a publisher had entered without her consent her novel (“Mi

front of courts. That said, there are norms and/or precedents regulating the use of digital documents as proofs in many countries. Similarly, some courts may have experiences related to the use of foreign copyright registrations as evidence²² and analogous procedures may be applied to private registrations. Overall, and at least so long as the managers of a private registry or other experts can testify about the technical characteristics of the system, there seems to be no reason to doubt the reliability of private registration.

2.3. *Emerging De Facto Licensing Standards*

The majority of the reviewed private registration systems allow the possibility to associate a Creative Commons license to the registered works. Moreover, the same possibility is offered by some online platforms that host user-generated content (UGC) which implicitly transforms these platforms into a private documentation system.

Creative Commons (CC) Corporation stewards a set of standardized copyright licenses to “provide simple, standardized alternatives to the 'all rights reserved' paradigm of traditional copyright.”²³ In the words of the cyber-law scholar Lawrence Lessig (one of the founders of the Creative Commons project in 2001), “[i]f the default rule of copyright is 'all rights reserved', the express meaning of a Creative Commons license is that only 'some rights [are] reserved.”²⁴ In other words, CC licenses enable creators to easily decide which rights they want to reserve for themselves and the conditions which others are automatically authorized to make use of their creations (to some extent).

There are six main²⁵ Creative Commons public licenses which are formed by a combination of

Expresión Ondulante”) in the Intellectual Property Registry of the Spanish Ministry of Culture; when she discovered that, the novelist produced her (older) Safe Creative registration as evidence of previous ownership and this evidence was accepted and the public record corrected accordingly. (This situation is not surprising, since in the copyright domain public registration typically provides just a rebuttable presumption of authorship: see the *WIPO Second Survey on Voluntary Registration and Deposit Systems*, summary of the responses, question number 10, available at http://www.wipo.int/copyright/en/registration/registration_and_deposit_system_03_10.html.)

22 See the *WIPO Second Survey on Voluntary Registration and Deposit Systems* (*supra* note), question number 12.

23 See www.creativecommons.org, where you may find more practical information about the licenses, since a significant part of the efforts of Creative Commons Corporation concern communication related activities. For a more theoretical and impartial commentary about CC licenses, see (the first part of) Niva Elkin-Koren (2006), “*Exploring Creative Commons: A Skeptical View of a Worthy Pursuit*”, in “The Future of the Public Domain”, P. Bernt Hugenholtz & Lucie Guibault, eds., Kluwer Law International, 2006 (available at SSRN: <http://ssrn.com/abstract=885466>).

24 From Lessig’s letter launching the first Creative Commons fund raising campaign (available at: <http://creativecommons.org/weblog/entry/5661>).

25 “Main” refers to the existence of other Creative Commons licenses, including some obsolete and repealed ones and the recent CC0 license or dedication to the public domain, described below.

different items (or modules) that right-holders can choose from:

- ⤴ “Attribution”. In each CC license, users must attribute the work in the manner specified by the author or licensor.²⁶
- ⤴ “Non-Commercial”. Authors can choose if other parties may or may not use the work for commercial purposes.²⁷
- ⤴ “No Derivative Works” (or “No-Derivs”). Authors can choose whether licensees may or may not alter, transform, or build upon the work; in other words, they can authorize (or not) the creation of derivative works.²⁸
- ⤴ “Share Alike”. Authors can require the creators of derivative works to distribute the resulting work only under a license identical to the one adopted by the original author. This is the so-called “viral effect” of the license, making the license persistent.

The combination of mutually compatible ones amongst the aforementioned modules will generate one of the six CC licenses: Attribution (or CC BY), Attribution-ShareAlike (CC BY-SA), Attribution-NoDerivs (CC BY-ND), Attribution-NonCommercial (CC BY-NC), Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) and Attribution-NonCommercial-NoDerivs (CC BY-NC-ND).

Creative Commons also provides a tool aimed at creating a “no rights reserved” public domain status: the CC0 (or Creative Commons Zero) dedication/license. This legal tool enables the licensor to waive all their rights and dedicate a work to the public domain (at least for jurisdictions where this is legally possible) or, at minimum, it offers a broad license and a promise from the licensor not to enforce one's remaining rights. Another public domain tool offered by Creative Commons is the “Public Domain Mark” which allows users to mark works as being in the public domain (also using the Creative Commons meta-data: see below).

All CC licenses are available as a legally binding full text (the “Legal Code”) or as a one-page human-readable summary for informative purposes (the “Commons Deed”). Creative Commons also provides symbols and logos for its licenses, which have become increasingly familiar to many Internet users. For a more detailed description of the Creative Commons public licenses (including information on the Commons Deed, the logos, etc.), please refer to the *Scoping Study on Copyright and Related Rights*

26 In older versions of the licenses, the “attribution clause” was optional, but it is currently included in all CC licenses.

27 For additional details about what is supposed to be “non commercial” according to CC licenses (or, at least, according to CC Corporation), see http://wiki.creativecommons.org/DiscussionDraftNonCommercial_Guidelines (last visited June, the 15th, 2007).

28 It is implicit that people interested in the creation of derivative works are always free to contact the original author(s) and ask for an explicit permission (completely independent from the CC license). The same applies for the “Non Commercial” clause.

and the Public Domain prepared by prof. Séverine Dusollier for the World Intellectual Property Organization (“WIPO”).²⁹ This paper also provides other relevant and complementary information related to the study at hand and could thus be considered a companion paper (e.g. it provides a description of public domain calculators – also see below, p. 26).

Behind the Commons Deed and the Legal Code, CC also offers a layer of machine-readable information about its licenses which are worth mentioning. The data about the license and the licensed content (i.e., the meta-data) are designed to be recognized by other software, particularly search engines but also office productivity, image, or music-editing suites, etc. Clearly, the purpose of the Creative Commons meta-data is for copyright documentation. Creative Commons has even described the process as a way “to make it easy for the Web to know when a work is available under a Creative Commons license” by providing a machine-readable “summary of the key freedoms and obligations written into a format that software systems, search engines, and other kinds of technology can understand”.³⁰

Importantly, Creative Commons did not limit itself when developing a standardized way to describe its own licenses. They also designed a broad set of principles and best industry practices that anyone could follow when designing software to understand copyright and licensing meta-data. This technical specification is called CC Rights Expression Language (“CC REL” or “ccREL”). For the purposes of this survey, its sufficient to say that ccREL does not aim to offer new technical standards; instead, it proposes best industry practices by building on existing Semantic Web technologies endorsed by the World Wide Web Consortium (such as RDF, the Resource Description Framework³¹) and on existing vocabularies, such as the Dublin Core³² which defines concepts including the type of work (dc:type) or

29 *Scoping Study on Copyright and Related Rights and the Public Domain* prepared by prof. Séverine Dusollier for the WIPO, 52-56 (available at http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=161162, last visited on September 6, 2011). For some additional references about the enforceability of CC licenses, also consider that, in March 2006, the District Court of Amsterdam handed down its decision in *Adam Curry v. Audax Publishing B.V.*, a preliminary ruling where a Creative Commons Attribution Non-commercial Share Alike 2.0 licence has been deemed enforceable. This case and another Spanish case implicitly dealing with CC licenses are briefly discussed in M. Travostino (2006), *Alcuni recenti sviluppi in tema di licenze Creative Commons*, in *Cyberspazio e Diritto*, VII(II), 253–270. See also Gonzales, A. G. (2004), *Viral contracts or unenforceable document? Contractual validity of Copyleft Licenses*, in *E.I.P.R.*, 26 (8): 331-339.

30 See <https://creativecommons.org/licenses/> (last visited June 20, 2011).

31 For more information about RDF, see <http://www.w3.org/RDF/> or (at an introductory level) <http://rdfabout.com/quickintro.xpd>. See also http://en.wikipedia.org/wiki/Resource_Description_Framework.

32 In its own words, “The Dublin Core Metadata Initiative, or 'DCMI', is an open organization engaged in the development of interoperable metadata standards that support a broad range of purposes and business models”. See <http://dublincore.org/> (last visited on June 20, 2011).

the title of a work (dc:title). Creative Commons also has its own vocabulary which defines important terms including the URI where more permissions (i.e., the right to commercially use a work that is normally offered to the public under a non-commercial license) can be negotiated (cc:morePermissions).

2.4. Registry and Archive Interoperability

The increasing popularity of private copyright registration systems and the even faster growth of private platforms offering copyright documentation has led to some fragmentation (since the whole set of registered works is spread across a large number of registries). As a matter of fact, it is difficult for users to search more than a single copyright registry at once and the number of searches to exclude that a work has been registered somewhere grows with the number of registries. Moreover, the research performed for this study clearly demonstrated that even just finding the registries themselves could be challenging, particularly if one tried to find all of them and not just the most popular ones. Hence, registry fragmentation generates additional costs for users.

Some technologies, such as the above-mentioned ccREL specification, try to address these and similar issues related to easily finding copyright-related information online. Other initiatives have even specifically addressed the issue of copyright registry interoperability. More information is provided below at § 4.2. *Meta-Documentation Projects*.

3. Private Copyright Registries

This section is an overview of the existing approaches to private copyright registration, in terms of technological means, business models, and different target customers and users (e.g. general purpose vs. sectoral registries). However, this review is not a completely exhaustive list of private copyright registries. Some projects were excluded since they appear to be in their design phase and not fully operational. Others were excluded because there is no significant evidence of their effective use (e.g. their website is obsolete, they are not linked by many other websites, discussion forums, etc.). Finally, and maybe most importantly to note is that this section excludes registries which clearly have a national focus even if there are some active registries of this kind accessible online, e.g. FriBit's Genero registry (<http://fribit.no/prosjekter/genero/>) in Norway or CostoZero.org's COPYZERO on-line (<http://www.costozero.org/wai/u2.html>) in Italy.³³

33 A peculiarity of Copyzero is that it does not aim at building an online copyright registry. Instead Copyzero is a website showing to authors how to create a reliable "home made" trusted timestamp certifying the date of "creation" of a work (this is done using a smart-card and an appropriate reader and following a procedure recognized by Italian law to timestamp digital documents). Following the procedure described by Copyzero, one can timestamp his works for a cost

More information about the individual registries and other services is available in Annex I.

3.1. General Purpose Registries

We defined “General Purpose Registries” as copyright registries that offer Web-based tools for users to obtain a secure registration of essentially any kind of copyrightable works.

More specifically, these private copyright registries do not specialize in any type of content (e.g. literary works, music, images, videos) but provide registration facilities for virtually any kind of digital file. From a technical point of view, this does not pose any particular problem since most services are based on the use of hash-codes which can be generated for any kind of file.

The following general purpose registries are described in detail under Annex I:

- ^ **MYOWS**³⁴
- ^ **Numly**³⁵
- ^ **Copyright Deposit**³⁶
- ^ **MyFreeCopyright**³⁷
- ^ **Copyright Registration Service**³⁸
- ^ **Patamu**³⁹

The majority of these registries offer their users the possibility to associate their registered works with a Creative Commons license (apart from Copyright Deposit, which does not appear to keep track of licensing choices).

Each registry tries to differentiate itself from competitors in various ways, starting from its pricing schemes. For instance, as of June 21, 2011, Numly offers the possibility to register up to 100 works per month with a monthly fee of \$9.95 or an yearly subscription for \$99.95. Comparably, Copyright Deposit costs \$15.00 (or £8.00 or €10.00) per registration but offers the possibility to update one's registration an unlimited number of times during the 30 days following the first submission. MYOWS is free for individuals (“freelance members”) with up to 1Gb of online space for their works while for

of about 0.36 Euro each. See <http://www.costozero.org/wai/copyzero.html> (last visited on June 19, 2011).

34 See <http://myows.com/> (last visited on June 19, 2011).

35 See <http://www.numly.com/> (last visited on June 19, 2011).

36 See <http://www.copyrightdeposit.com/> (last visited on June 19, 2011).

37 See <http://myfreecopyright.com/> (last visited on June 19, 2011).

38 See <http://www.copyrightregistrationservice.com> (last visited on June 19, 2011).

39 Patamu (<http://www.patamu.com/>) is a recently established service and, to date (June 21, 2011), just 361 works have been registered for a total of 1,937 Mb.

companies and people wanting more storage (4Gb), the costs is \$5.00 a month or \$50.00 a year. Patamu also offers a free account with a limited number of registrations (12) or a user can upgrade to an advanced or pro-account for €20.00 or €40.00 per year, respectively, which offers more storage space and the possibility to register bulkier works.

These registries offer a diverse range of complementary services which are discussed in further details in Annex I. For example, Copyright Deposit and Numly associate publicly verifiable and unique registration numbers to registered works.⁴⁰ In litigation cases and as evidence for trial, Copyright Deposit provides a copyright certificate signed by a notary public within the area of the author(s) plus all files and documents that were received for storage. Numly offers bar-codes to attach its registration numbers to physical objects and has a rich offer of plug-ins and add-ons for the *Firefox* browser, the *WordPress* content management and blogging platform, *Apple* widgets, and an API for automated interaction with the system. MYOWS offers discounts for registering works with the U.S. Copyright Office through third-party services and offers additional features, such as, sending “cease & desist” letters and DMCA take-down notices directly from their online platform.⁴¹

When measuring the online popularity of these services in terms of their PageRank,⁴² one could conclude that MYOWS (PageRank score of 6/10) is relatively “better-connected” than Numly and Copyright Deposit (both scoring 5/10). According to Google, a similar result applies in terms of absolute links to the respective homepage. It can be reasonably concluded that the higher popularity of MYOWS can also be attributed to its offer of a free basic account.

On March 3, 2011, Numly reported to have registered 11,000 copyrights. Copyright Deposit declined to provide similar data. There are no similar estimates concerning MYOWS.

In comparison to sector-specific registries, a potential shortcoming of general purpose registries is that they cannot easily leverage social mechanisms and/or other network effects to gain visibility and/or a large base of users. This kind of shortcoming could be eased by associating a general purpose

40 A search facility is available on the website of these services, where you can search by “Numnly number” or “copyright number”.

41 To date (June 21, 2011), MYOWS.com shows on its homepage a counter of “Successful Take Downs Registered To Date” scoring 79.

42 See <http://en.wikipedia.org/wiki/PageRank>: “PageRank is a link analysis algorithm, named after Larry Page and used by the Google Internet search engine, that assigns a numerical weighting to each element of a hyperlinked set of documents, such as the World Wide Web, with the purpose of “measuring” its relative importance within the set.” (last visited on June 20, 2011).

registry with a philosophy shared by some online communities: at least this is what commons oriented registries did.

3.1.1. General Purpose, Commons Oriented Registries

General purpose registries do more than just offer the possibility to associate permissive copyright licenses (such as any of the Creative Commons licenses) to one's works. Several registries also take a proactive approach to favor the sharing of creative content (and when the author so decides, its re-use). Additionally, these registries offer features which are useful for communities where the people are both producers and re-users of creative works.

Annex I reviews some of these registries:⁴³

▲ **Safe Creative**⁴⁴

▲ **Registered Commons**⁴⁵

▲ **CreativDepot**⁴⁶

All the registries offer online galleries featuring some of the registered works (viewable depending on the decisions of the right-holders).

With regards to Registered Commons, the favoritism towards “the commons”⁴⁷ is explicit within the brand name of the registry itself. Moreover, the default option when an author registers a new work is to make a copy available online (under the terms of the a chosen license). The same attitude towards online sharing can also be easily seen for Safe Creative just by looking at the website of the service (with its slogan “spread your work safely”), at its partnerships (for instance with Jamendo that encourages the use of Creative Commons licenses, but also with Creative Commons itself⁴⁸), or at the affiliations of its staff (showing additional relationships with Creative Commons).⁴⁹

43 The classification of a registry under this category is admittedly subject to different evaluations. For instance, one could argue that some general purpose registries, such as Patamu, should also be listed here.

44 See <http://www.safecreative.org> (last visited on June 19, 2011).

45 See <http://www.registeredcommons.org/> (last visited on June 19, 2011).

46 See <http://www.creativdepot.at/> (last visited on June 19, 2011).

47 Here “the commons” refers to (intangible) resources that are shared among communities of re-users (typically abiding to accepting certain rules, which are usually stated using appropriate copyright licenses). See L. Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World*, Random House, 2001, 19-23 (also available at <http://www.the-future-of-ideas.com/>).

48 Safe Creative includes a platform that allows creators to sell their works and it integrated in the platform the possibility of donating a portion of one's sales to two non-profits: Creative Commons or Médecins Sans Frontières. See Jane Park, March 8, 2011, “Safe Creative enables creators to donate a portion of their sales to Creative Commons” (available at <https://creativecommons.org/weblog/entry/26753>, last visited on June 21, 2011).

49 In quantitative terms, however, the Copyright Observatory of Safe Creative shows that, as of May 2011, only 23% of the

Registered Commons and Creative Depot use an original approach to pricing. They each offer three free registrations per year and then allow for an unlimited number of registrations on the basis of vouchers which are provided by partner institutions. In both cases, these institutions include OSAlliance, a free software co-op offering various kinds of open source services and products. This approach to pricing represents another link with “the commons” since the partner institutions deal with participative approaches to creativity, etc. In practice, however, ordinary users face significant barriers when using these registries for more than three times per year. For example, to join one of the partner institutions of Creative Depot, a user would need to understand German. In fact, OSAlliance also sells vouchers to be used with Registered Commons at €99.00 per year (although during the Spring/Summer 2011, a voucher was available for €78.00) which, taking into consideration the pricing choices of competitors, makes the pricing more suitable for users registering a high number of works. In terms of pricing, Safe Creative follows a more traditional approach offering a free account with up to 2Gb of total storage and up to 50 monthly registrations. Their premium service is offered for €24.00 a year and includes some additional features, such as 5Gb of storage and unlimited registrations. Their last option is a professional account offered at €64.00 per year and provides 10Gb of storage with legal assistance and free processing of up to six registrations with the U.S. Copyright Office⁵⁰.

Safe Creative is one of the most popular private copyright registries online. The web popularity of Safe Creative is shown by its PageRank of 6/10 – which is the highest we measured for private registries (matched only by MYOWS.com). But the reputation of this registry is more clearly supported by the number of times in which Safe Creative is mentioned on online discussion groups. For example, a search on GoogleGroups for “SafeCreative.org” returned 18,900 results while the same search for “MYOWS.com” returned only 267 results.⁵¹

Along with Registered Commons, Safe Creative also seems to be the most popular registry among the

registered works did not have All Rights Reserved. In May 2010, 36% of the registered works had just “some rights reserved”: a potential interpretation could be that the increasing popularity of Safe Creative is also increasing the numbers of registrations which are unrelated to the “online sharing communities”. That said, a closer examination of older data is not conclusive in finding a clear trend.

50 As it will be discussed below (page 41), several private registries recognize the advantages of public copyright registration, especially in the US (and they also suggest to combine private and public registration, in order to take advantage of the pros of each, limiting the cons, e.g. systematically registering with private registries one's works in order to have a quick and cheap source of evidence, focusing the more costly public registration to the works with higher commercial potential).

51 Results measured on June 21, 2011. The results reported on the synoptic table for copyright registration systems are higher, since that search included different arguments (e.g., “safecreative” or “Safe Creative”).

Creative Commons community.⁵² Additionally, Safe Creative strikes an interesting compromise between being a general purpose registry and connecting with specific online communities of creators. As this study will show, social platforms, such as Jamendo, are capable of gathering much larger amounts of copyright information albeit relatively less reliable information than full-featured registries. However, registries obviously provide complementary features that other platforms cannot or do not want to provide. The potential of complementary features are implicitly confirmed by some existing partnerships, such as the one between Jamendo and Safe Creative.⁵³

Safe Creative also manages Creative People which “is a virtual gallery that allows authors to exhibit the works they have registered in Safe Creative.” Interestingly, any user can obtain a “registration declaration from Safe Creative that states the license applying” to the work at the moment of its download.⁵⁴

3.2. *Specialized/Sectoral Registries*

Some private copyright registries specialize in well-defined categories of works, such as screenplays for movies, format “bibles”, images, or music and lyrics. This kind of specialization creates two main effects. One effect being the more ease with which to offer value-added services including customized copyright notices for certain types of content, other copyright-related meta-data, monitoring features, etc. The other effect is how the choice of a certain kind of work indirectly implies the choice of a certain category of users, hence allowing the registration activity to be coupled with some social/associative features. Some association predates the copyright registry, in which case, it actually provides the basis for the copyright registry.

- ⤴ **Writers Guild of America, West Registry**⁵⁵
- ⤴ **FRAPA Format Registry**⁵⁶
- ⤴ **Songrite**⁵⁷

52 This hypothesis came from a comparison between the list of copyright registries available on the Wiki of Creative Commons (<http://wiki.creativecommons.org/Registries>) with the list of speakers at various Creative Commons related events, such as the Creative Commons Technology Summits 2008 and 2009. To confirm this impression, an e-mail was sent to the Creative Commons Community mailing list asking for references to private copyright registries: all the answers provided mentioned both Safe Creative and Registered Commons.

53 Jamendo users can directly register their albums with SafeCreative from their administration panel on the Jamendo platform. (Source: <http://blog.jamendo.com/2009/09/02/artists-protect-your-music-with-safecreative/>. Last visited June 12, 2011.)

54 See <http://www.creativepeople.sc/> (last visited June 12, 2011.)

55 See <http://www.wgawregistry.org/> (last visited on June 19, 2011).

56 See <http://www.frapa.org/format-registry/> (last visited on June 19, 2011).

Established in 1927, Writers Guild of America, West Registry (WGAWR) is one of the oldest private copyright registries. This service (also available online) is provided to members of the Writers Guild of America and also to any registering author.

FRAPA, the Format Recognition and Protection Association, is an international association dedicated to the protection of formats, including the registration of format proposals.

Songrite is an independent copyright registry specializing in songs music and lyrics.

The more interesting and, according to PageRank, “more connected” specialized registries are provided by organizations representing certain categories of creators, such as an association or union. The associative nature of the organizations backing these registries probably contribute to their offer of distinctive features, such as alternative dispute resolution mechanisms. For example, FRAPA’s collaboration with the WIPO Arbitration and Mediation Center enabled the offering of a dispute resolution service.⁵⁸ However, the link between private registration and various kinds of dispute resolution activities remains vague.

4. Private Documentation Systems

The services described in this section are not copyright registries. They do not aim to provide highly reliable third-party evidence concerning (a proxy of) the date of creation of a very precisely identified work. Instead, they provide useful information, which may (for example) complement the search for a right-holder or vehicle meaningful licensing details (to human beings or computers).

Given the broad range of online platforms offering some kind of information relevant for copyright-related purposes, this section is just a sample of the services that the authors considered as more relevant or representative (this selection of private copyright documentation systems is also described in greater detail within Annex I).

The first service described can be defined as a one-stop shop for finding data about a certain category of right-holders:

57 See <http://www.songrite.com> (last visited on June 19, 2011).

58 See <http://www.wipo.int/amc/en/film/>: “As of April 2010, the WIPO Center and the Format Recognition and Protection Association (FRAPA) collaborate in alternative dispute resolution in the area of TV program format disputes. Under this collaboration, the WIPO Center has taken on FRAPA’s existing mediation activity and administers TV format related disputes filed under the WIPO Mediation and Expedited Arbitration Rules for Film and Media.” (Last visited on June 21, 2011.)

⤴ **Photographer Registry**⁵⁹

Photographer Registry is a joint effort of different photographers associations of the United States, which provides for a simple way to locate photographers and studios through its large database of registered photographers. This is a useful service for those who need to request authorization for the use of a particular photograph. Especially since the name of the studio/photographer is frequently the only copyright-documentation attached to photographs (this information was systematically stamped on the back of printed pictures but it can also be frequently found in the meta-data of digital photos). This kind of database contributes to reducing orphan works and could represent a precious element in reducing the risk of being faced with successful copyright defenses (particularly in case orphan work legislations were enacted).⁶⁰

Another interesting service mixes advanced forms of copyright notices or meta-data with some monitoring features:

⤴ **C-Registry**⁶¹

C-Registry is actually a service that does not fully fit within any of the categories of this study. Its key feature is to track images on the Internet. Given a digital image with the appropriate meta-data, C-Registry can help find the image's right-holder. Additionally, the service provides features to track one's images online. C-Registry also offers a form of copyright notice called *Veripixel* which is a series of coloured pixels located on the image itself with a unique ID (so that to modify the image, it would be necessary to strip it of copyright-documentation instead of just deleting some separate meta-data). More simply, C-Registry is a service between copyright-documentation and copyright-monitoring.

To determine if a work is still copyright protected, one may need to collect several pieces of information. For books, there are several online services which help to perform this research:

⤴ **Open Library**⁶²

⤴ **WorldCat Copyright Evidence Registry**⁶³

59 See <http://www.photographerregistry.com/> (last visited on June 19, 2011).

60 See also J. Brito and B. Dooling, *An Orphan Works Affirmative Defense to Copyright Infringement Actions*, 12 Mich. Telecomm. & Tech. L. Rev. 75 (2005).

61 See <http://www.c-registry.us/> (last visited on June 19, 2011).

62 See <http://openlibrary.org> (last visited on June 19, 2011).

63 The Copyright Evidence Registry of WorldCat was announced as a pilot project on August 25, 2008 and it was still available at the time of our review (March 2011) at <http://www.worldcat.org/copyrightevidence/registry>. The website is currently "temporarily unavailable" (last attempt to open the page: September 6, 2011).

Open Library is a community effort to “provide a page on the web for every book ever published”. More specifically, it is a distributed project which shares some features with public projects, such as Europeana, or corporate ones, such as GoogleBooks. The website reports information such as the year of publication for various book editions, provides author pages which include the year of birth and death or other similar pieces of information, and essentially provides useful information to help understand if a book already is in the public domain and/or if it can be considered an orphan work. WorldCat is another similar project and possibly the World's largest network of library-based content and services. Amongst the related projects there is the WorldCat Copyright Evidence Registry (CER) which is an online database building upon WorldCat to create a union of copyright information on books.

Using the information found in a book and/or on OpenLibrary or WorldCat, or other similar portals, it is (sometimes) possible to determine whether a work is in the public domain. To do so, “public domain calculators” may provide important support and may also be considered an indispensable tool, especially if one is not a copyright lawyer (and/or if one is interested in the public domain status of a work in a foreign country).

Public domain calculators are pieces of software (usually offered as an online service) which can automatically evaluate the copyright status of a given work in a given jurisdiction. The calculators are normally based on an interactive procedure where users are asked various questions, such as the type of work (e.g., “is the work a photographic work?”), the date of publication, and the year of death of the author. Accordingly, even if public domain calculators can help to eliminate the necessity to consult a copyright lawyer, they still need various kinds of user inputs and clearly need to be used in complement with other copyright documentation systems. In essence, public domain calculators are “copyright computation systems” which would be essentially useless in absence of the appropriate copyright information.

Depending on the available information (and on the quality of the algorithms embedded in the calculator), the software can return various kinds of answers, such as: “the work is in the public domain”, “the work will be protected until year 20XY”, or “it is not possible to determine the copyright status of the work”, etc.

Public domain calculators are normally developed by non-profit organizations or academic institutions. The Copyright-Term Calculator provided by the website Public Domain Sherpa (which was developed by a copyright lawyer) is one of the most popular online calculators in which to evaluate the copyright

status of a work in the U.S.⁶⁴ Recently, the Europeana Connect European project launched a website (<http://outofcopyright.eu/>) including a public domain calculator which can offer results for various European (*rectius* EEA) countries.⁶⁵ In the field of public domain calculators – and apart from the launch of OutOfCopyright.eu during the Summer of 2011 – our review did not find significant additions to what is described in the *Scoping Study on Copyright and Related Rights and the Public Domain* to which we remand for further details.⁶⁶

Concluding this section, it is worth mentioning that several libraries publish information about their catalogues as “open data” and these data obviously include copyright related pieces of information. The “data hub” and meta-registry <http://ckan.net> lists various sources of similar (open) bibliographic data. Finally, it is also worth mentioning that there are several intermediaries which could (or already do) provide value added services that take advantage of standardized ways to express copyright-related information.⁶⁷

4.1. Platforms Including Documentation Systems

The goal of these services is not necessarily to provide copyright documentation. In fact, several of the richest sources for copyright documentation are portals which aim to make user-generated content (UGC) or other kinds of creative works available online. Some examples described in Annex I include:

- ▲ **Flickr**⁶⁸
- ▲ **Jamendo**⁶⁹
- ▲ **Google Books**⁷⁰

Flickr and Jamendo are websites specializing in making certain categories of content such as photos, videos, and music available online. Both portals have abundant UGC and offer social or community features such as the possibility to comment on works, select favorites, and find out what works are the favorites of friends, etc.

Flickr offers its users the possibility to attach a specific license to their works. Users can choose

64 See <http://www.publicdomainsherpa.com/calculator.html> (last visited on June 21, 2011).

65 See <http://outofcopyright.eu/> (last visited on June 21, 2011).

66 *Scoping Study on Copyright and Related Rights and the Public Domain* (*supra* note), 61-64.

67 The analysis of similar services is outside the scope of this survey, but – as way of example – the Copyright Clearance Center (CCC, <http://www.copyright.com/>) is a provider of copyright licensing services that offers also rights-brokering services in the publishing field (from books and journals to blogs).

68 See <http://www.flickr.com/> (last visited on June 19, 2011).

69 See <http://www.jamendo.com> (last visited on June 19, 2011).

70 See <http://books.google.com/> (last visited on June 19, 2011).

between “all rights reserved” or any of the standard Creative Commons licenses. It is also possible to set a default license which would apply to all future uploads (unless the user selects otherwise). As of June 23, 2011, Flickr hosts 189,559,895 CC-licensed photos. Of these, 53,567,081 can also be used for commercial purposes and 124,848,391 can be modified to create derivative works. Additionally, 44,097,267 pictures are licensed under CC BY or CC BY-SA which allows both commercial uses and modifications.

Jamendo offers its users the possibility to make explicit their license choice but favors free and open licenses such as the Creative Commons ones. As of June 23, 2011, Jamendo hosts 49,257 albums: 2,053 are licensed under CC BY; 9,739 under BY-SA; 25,369 under BY-NC-SA; 519 under BY-NC; 1,270 under BY-ND; and 9,819 under BY-NC-ND. (90 albums are also available under the now obsolete Creative Commons Sampling Plus license while 194 albums are available under the Creative Commons NonCommercial Sampling Plus license.) Moreover, Jamendo makes content available under open licenses different from the Creative Commons ones (e.g., 179 albums are available under the Free Art license).

Jamendo’s business model is based on the commercial licensing of the music it hosts (and other value added services). Jamendo specializes in offering use licenses such as background music for shops and businesses or synchronization for advertising, etc. What is particularly relevant for this study is that Jamendo can issue (as one of its value added services) a certificate attesting to the origin of the licensed music and that Jamendo authors are not members of any collecting society.

As it has already been mentioned, Jamendo not only makes it easier for users to associate a Creative Commons license to their works but also facilitates to register copyright through its collaboration with Safe Creative.

Other platforms hosting UGC also offer their users the possibility to easily associate some copyright-related information to their (user-generated) content, mostly in the form of a CC license.⁷¹

71 For example, Vimeo is a community of people sharing the videos they make that, starting from July 2010, allowed its users to license their content with CC licenses. See Vimeo's blog post from Dalas Verdugo, “Recycle, Remix and Re-use with Creative Commons”, available at <http://vimeo.com/blog:321>, July 13, 2010 (last visited on June 23, 2011). More recently, Google's YouTube added the Creative Commons Attribution license as a licensing option for its users generating reports that “[i]n conjunction with the implementation, YouTube has launched a Creative Commons video library containing 10,000 videos under CC BY from organizations such as C-SPAN, PublicResource.org, Voice of America, and Al Jazeera.” See Jane Park, “YouTube launches support for CC BY and a CC library featuring 10,000 videos”, June 2, 2011, available at <https://creativecommons.org/weblog/entry/27533> (last visited on June 23, 2011). See also Stace Peterson, “YouTube and Creative Commons: raising the bar on user creativity”, June 2, 2011 <http://youtube-global.blogspot.com/2011/06/youtube-and-creative-commons-raising.html> (last visited on June 23, 2011).

4.2. *Meta-Documentation Projects*

The services that we defined as “meta-documentation projects” do not collect copyright-related information. Instead, they develop and offer, either to the public or to specific communities, sets of best practices and/or standards which are related to copyright documentation. In other words, these projects do not deal with the provision of information regarding copyrights, but deal with the expression and organization of such information.

We reviewed two meta-documentation projects which offer general purpose copyright-related information (in particular, licensing) and similar sector-specific standards:

▲ **Creative Commons**⁷²

▲ **Picture Licensing Universal System (PLUS)**⁷³

Additionally, this section describes OSCRI (Open Standards for Copyright Registry Interoperability), a higher level of standardization effort related to the interoperability between copyright registries.⁷⁴

An introduction was already offered (see above, § 2.3. *Emerging De Facto Licensing Standards*) regarding Creative Commons efforts to standardized licensing-related information. As this survey mentioned, CC's meta-data have been used by many private copyright registries and several platforms offering copyright documentation which would confirm the progressive expansion of this model, such as Flickr (an early adopter) or YouTube (a recent adopter).

Moreover, it is important to mention that projects such as Wikipedia are directly licensed using the Creative Commons Attribution Share-Alike license. Not only does this generate a huge amount of CC-licensed pages (more than 3.66 million articles just in English as of June 22, 2011), but it also feeds the collection of materials licensed with compatible licenses. For instance, the Wikimedia Commons project features a database of more than 10 million freely usable media files and associated licensing information.⁷⁵ Additionally, given the viral nature of the CC BY-SA license, platforms that are completely independent from Wikipedia or the Wikimedia Foundation but which also extract content

72 See <http://www.creativecommons.org> (last visited on June 21, 2011).

73 See <http://www.useplus.com/> (last visited on June 21, 2011).

74 The official website of OSCRI is <http://oscri.org/>. This initiative is not described within Annex I, since it seems to be more interesting because of its general purpose than because of the results that it actually achieved so far.

75 See <http://commons.wikimedia.org/> (last visited on June 22, 2011). As an illustration, see the page http://commons.wikimedia.org/wiki/File:Pieris_rapae_edit2.jpg, where one can find the following statement: “I, the copyright holder of this work, hereby publish it under the following license: [...] Creative Commons Attribution 3.0 Unported license.” Given the technical characteristics of the Wikimedia platform, one may be reluctant to argue that this is equivalent to a copyright registration, but it definitely amounts to an important copyright-documentation platform.

from Wikipedia are pushed to use the same license. A perfect example is dbPedia which (as the name would suggest) can be described as a representation of Wikipedia in the form of a database (or as a Semantic Web representation of Wikipedia) and which also uses the same CC BY-SA license. The re-use of content and the production of content which is suitable for re-use on Wikipedia makes the propagation of its copyleft approach to licensing more and more likely. And, indirectly, it increases the amount of copyright documentation available online.

For sector-specific projects, PLUS is a three-part system developed to “simplify and facilitate the communication and management of image rights.”⁷⁶ The three components of PLUS are the *Picture Licensing Glossary*, the *Media Matrix*, and the *License Format*. The first component serves to provide a common understanding of language used in the picture licensing industry and consists of over 1,000 terms with definitions and uses agreed upon by the industry’s professionals. The second component, *Media Matrix*, provides uniform specific international media categories (organized by type) and billing codes co-developed by image providers and users. The last component, *License Format*, is the result of a merge between the previous two components and consists of a machine-readable data format available to embed as meta-data in an image header or as an invisible watermark on a printed image. PLUS aspires to become a worldwide standard for image licensing and has already been included in the products of software companies such as Adobe Systems or used by the British Library.⁷⁷

The OSCRI (Open Standards for Copyright Registries Interoperability) Group includes several private copyright registration systems including Safe Creative, Registered Commons, and Genero (a Norwegian service). It also includes Creative Commons⁷⁸ and Jamendo, as well as SemanticCopyright.org and Attributor.com (see below). OSCRI believes that, while the use of copyright registries has increased during the last years, “[t]his proliferation of new registries creates new problems and needs, including the necessity of approving protocols that standardize the way these registries inscribe, categorize and tag the works entering their systems. Unfortunately, practically each registry has, in these days, its own registration system, which creates incompatibility and a lack

76 See <http://www.useplus.com/aboutplus/> (last visited on June 22, 2011).

77 See <http://www.useplus.com/aboutplus/news.asp> (last visited on June 22, 2011). “On April 30, 2010, Adobe released Creative Suite 5, integrating numerous PLUS rights metadata fields adopted by IPTC”, moreover “[t]he British Library leverages the PLUS Standards in their primary image licensing platform, Images Online.”

78 See also Frank Tobia, December 12, 2008, “Closing: What’s next in 2009” reporting Nathan Yergler’s list of future technological initiatives from Creative Commons, available at <http://labs.creativecommons.org/2008/12/12/closing-whats-next-in-2009/> (last visited on June 21, 2011). The list included an item called “OSCRI / CC Network and creating an interoperable registry with Safe Creative and Registered Commons”.

of interoperability between them.”⁷⁹ In this regard, the OSCRI initiative represents “a platform for the study and development of standardization rules and protocols in the copyright field, with the main aim of creating a scenario where all copyright registries are compatible between each other.”

At the moment, this initiative is only in its initial dissemination phase where it mainly aims to raise awareness and gather the widest possible participation. In fact, the speed of updates on the OSCRI website (with two spikes in 2008 and 2010) suggests that this specific project may not be capable of going much further than its “Declaration of Intent”, which states:

Considering Copyright needs tools and initiatives that contribute to content dissemination and exploitation drawing the context of Information Society, protecting both interests of rightholders and users.

Considering the role of Copyright Registries in this field, not only for preserving our artistic and cultural heritage recording the basic facts of a particular copyright, but also fostering its access guaranteeing suitable protection for the implied parts: creators, rightholders and users.

Considering standardization and the following cross recognition of Copyright Registries would benefit access and identification of works and their rightholders, specially through Internet.

Considering this context requires the involvement of all stakeholders, from public or private registries to licensing systems, content providers, organisations and international or national bodies on the field of Copyright, standardization initiatives and bodies, industry representatives and civil society.

We propose:

The creation of The Open Standards for Copyright Registry Interoperability Group (OSCRI), as a platform that responds to the above mentioned needs. The aim of this group is to prepare the structure of an independent body for the analysis and development of standards for Copyright Registries, on the basis of the following principles:

- ⤴ Open to everyone, independent, neutral and globally focused,*
- ⤴ Considering the existing initiatives or projects currently observing and developing standards in the copyright field,*
- ⤴ Looking for synergies between copyright stakeholders, and respecting interests and needs of all of them.*

However, the review of private documentation systems in this survey seems to confirm that OSCRI's remarks are correct and its principles are worth further discussing (perhaps within a different forum). An alternative possibility is that some kind of standardization will emerge, not through institutional

⁷⁹ See <http://oscri.org/> and <http://oscri.org/declaration-of-intent> (last visited on June 15, 2011).

mechanism but through competition and *de facto* standards and/or broader and more general standards, such as the ones emerging within the Semantic Web. Semantic Copyright is also the name of one of the members of OSCRI, which aims to become “a platform for research and promotion of semantic technology solutions applied to the field of Intellectual Property Rights.”⁸⁰ Despite having been active during 2010, Semantic Copyright may also be perceived as an almost dormant project. Incidentally, the participation of Attributor.com in OSCRI highlights the existence of another category of players interested in copyright information interoperability; that is the copyright monitoring and enforcement services. In fact, Attributor “continuously monitors the Web for copies of your content and removes those that violate your anti-piracy policy.”⁸¹ This anti-piracy policy actually includes relatively sophisticated choices such as the use of permissive Non-Commercial licenses, etc.; and as copyright documentation becomes more standardized and easily available, the easier it will become to provide refined monitoring systems.

Lastly, the Open Digital Rights Language (ODRL) Initiative (<http://odrl.net/>) is worth mentioning⁸² as one of the potential *de facto* standards in this domain (in competition or in conjunction with ccREL). Moreover, some sector specific efforts are also emerging, for instance in connection with the International Music Registry.⁸³

80 See <http://www.semanticcopyright.org/> (last visited on June 20, 2011).

81 See <http://www.attributor.com/> (last visited on June 20, 2011).

82 ODRL is a standard Rights Expression Language (such as the aforementioned ccREL) used in Digital Rights Management (DRM) systems, but also in open content management systems.

83 The International Music Registry is “a collaboration of the worldwide music sector, facilitated by WIPO, aimed at facilitating licensing in the digital environment by providing easier access to reliable information about musical works and sound recordings.” The service aims at making it faster and simpler to create and use legal music services. An explicit aim concerns the maximization of interoperability between different rights-management systems in use in different countries: “An accurate, authoritative, registry of information about musical works, sound recordings and music videos” in the form of a “transparent, inclusive architecture that operates for the benefit of all stakeholders”. See <http://www.wipo.int/imr/en/> (last visited on June 21, 2011).

URL	Types of Works	CC	PD	Licensing others	Public search/identification	PageRank	# links	# GoogleGroups	APIs	RSS	Storage (work)	Length of Registration	Fingerprinting (tech. Used)	Fees
http://m.vowis.com	literary, dramatical and audiovisual, musical, artistic, DB, software	yes		custom		6/10	988	458	yes		BASIC: 1 GB PREMIUM: 4 GB	period of subscription + 3 months (if > 1GB)	yes (N/A)	BASIC: free PREMIUM: \$80 (yearly)
http://www.numl.com/	literary, dramatical and audiovisual, musical, artistic, DB, software	yes	yes		no/yes	5/10	580	460	yes		N/A	N/A	yes (N/A)	\$9.95 (monthly) \$99.95 (yearly)
http://www.copyrightdeposit.com/	literary, dramatical and audiovisual, musical, artistic, DB, software				yes/yes	5/10	12760	45300			500 MB (50 MB)	unlimited	N/A	\$ 15/registration
http://myfreecopyright.com/	literary, dramatical and audiovisual, musical, artistic, DB, software				yes/yes	5/10	5841	439		yes	N/A	N/A	yes (256-bit hash algorithm)	(free)
http://www.copyrightregistrationservice.com/	literary, dramatical and audiovisual, musical, artistic, DB, software				no/yes	3/10	25321	83			(10 MB)	BASIC: 4 years; PREMIUM: 15 years	no (2 copies on CDs/DVDs & server logs and/or written declaration)	BASIC: \$45; PREMIUM: \$125
http://www.pelamu.com/	literary, dramatical and audiovisual, musical, artistic, DB, software	yes		custom		2/10	497	21400			BASIC: 120 MB (15 MB); PREMIUM: 2 GB (80 MB)	N/A	yes (N/A)	BASIC: 0€ per year (12 registrations); PREMIUM: 40€ per year (150 registrations)
http://www.safecreative.org	literary, dramatical and audiovisual, musical, artistic, DB, software	yes		GNU GPL/FD_L, custom	yes/yes	6/10	267022	64600	yes	yes	BASIC: 2 GB (N/A) PREMIUM: 10 GB (N/A)	N/A	yes (MD5, SHA1)	BASIC: 0€ per year (50 registrations/month) PREMIUM: 64€ per year
http://www.registeredcommons.org/	literary, dramatical and audiovisual, musical, artistic, DB, software	yes	yes	GNU GPL, custom	yes/yes	6/10	4677	365	yes		BASIC: N/A (N/A) PREMIUM: N/A (N/A)	High-codes: +7 years; timestamps: +35 years (by A-cert)	yes (MD5)	BASIC: free (3 registrations/year) PREMIUM: 99€ yearly (78€ discount)
http://www.creativepool.it/	literary, dramatical and audiovisual, musical, artistic, DB, software	yes	yes	GNU GPL, custom	yes/yes	5/10	3754	24	yes		BASIC: N/A (N/A) PREMIUM: N/A (N/A)	High-codes: +7 years; timestamps: +35 years (by A-cert)	yes (MD5)	BASIC: free (3 registrations/year) PREMIUM: need a voucher from partner organization
http://www.wearregistriv.org/	literary, dramatical and audiovisual, musical					5/10	321	279			N/A (10 MB)	5 years (renewable)	yes (Surety®)	\$20/registration (or \$10/for members)
http://www.frapa.org/format-registry/	television formats					5/10	41	131			N/A (20 MB)	unlimited	N/A	50€/registration (or 20€ for members)
www.songtime.com	musical					3/10	416	7820			BASIC: one set of songs/lyrics; PREMIUM: max. 14 sets songs/lyrics	10 years	N/A	BASIC: \$30; PREMIUM: \$50

Notes about the table:

- ✧ All results have been recorded on June 21, 2011.
- ✧ **URL**: the main URL of the registry.
- ✧ **Types of Works**: the types of works which can be registered according to the service website (in practice, for many services, any .ZIP archive can be uploaded).
- ✧ **Licensing**: available licensing options (if any) which can be associated with a registered work (**CC** means one of the Creative Commons licenses; **PD** means "public domain" status, possibly applying a CC0 license; **others** may include any custom license or the GNU GPL and GNU FDL licenses).
- ✧ **Public search/verification**: if "yes/yes", it is possible to search the database (by title, name of author, etc.); if "no/yes" it is possible to perform only limited searches by copyright registration number or the like.
- ✧ **PageRank** and **# links**: gives an estimate of the online visibility of the service and were found by entering the main URL of the website on <http://www.checkpagerank.net>.
- ✧ **# GoogleGroups**: the number of results on GoogleGroups was estimated using the following keyword searches (various experiments have been performed using capital letters and similar variations; this led to slightly different results, which are omitted for brevity – the most favourable result has been recorded): MYOWS ("myows"); NUMLY ("numly"); COPYRIGHT DEPOSIT ("copyright deposit"); MYFREECOPYRIGHT ("myfreecopyright" OR "my free copyright"); COPYRIGHT REGISTRATION SERVICE ("copyright registration service"); PATAMU ("patamu"); SAFE CREATIVE ("safecreative" OR "safe creative"); REGISTERED COMMONS ("registered commons"); CREATIVDEPOT ("creativdepot" OR "creative depot"); WRITERS GUILD OF AMERICA, WEST REGISTRY ("wga west registry" OR "wga west registry"); FRAPA FORMAT REGISTRY ("frapa format registry") OR "frapa format registry"); SONGRITE ("songrite").
- ✧ **APIs**: if yes, it is possible to automatically interact with the service via software.
- ✧ **RSS**: if yes, it is possible to automatically register Web pages providing an RSS feed.
- ✧ **Storage (work)**: the total available storage (with the maximum size for an individual registration in parenthesis).
- ✧ **Length of Registration**: the duration of a registration. For many services, it is not available but for some, it is explicitly described as unlimited (as long as the service will exist).
- ✧ **Fingerprinting (tech. Used)**: if yes, a hash-code or digital fingerprinting technology is used (name in parenthesis).
- ✧ **Fees**: the cost of using the service. Only the cost of the basic account and of the best premium account are provided (however, for Safe Creative, we listed their "Premium" account and not one of the available corporate accounts).

5. Emerging Trends

Private copyright registration and documentation is a relatively recent and quick-changing phenomenon, hence making it difficult to draw conclusions from a review of the domains. However, some trends can be identified and will be analyzed in this section.

5.1. Private Copyright Registries as a Growing Phenomenon

First, the number of existing (mostly online only) private copyright registries is growing in terms of visibility and the number of registered works.⁸⁴ This definitely reaffirms the speculation that very low barriers are needed to enter this market and also possibly supports the existence of a demand for these type of services.

The low level of barriers to enter this market is also supported by the fact that even if one may find a few sporadic cases in which a private copyright registry completely disappears from the web,⁸⁵ most quasi-inactive copyright registries are still online and in apparently reasonable working order.

Considering that these quasi-inactive registries are likely to have limited or no revenues, this confirms that the cost of maintaining a working registry is not prohibitive.

In regards to the demand related to copyright registration, even a non-systematic monitoring of the mailing lists and discussion forums related to the communities of (online) authors of creative works confirms that this demand exists⁸⁶ especially when taking into consideration the growing number of

84 In the context of the survey at hand, we were allowed to access confidential internal data from Safe Creative showing that the total number of registrations is in the order of the hundreds of thousands, while the monthly growth of registered works is in the order of the tens of thousands.

85 A standard doubt about private copyright registration is: if a service bankrupts or closes for any reason, what will happen to the registered information? That depends on the provisions and contingency plans (if any) that the service organized. Some services, such as CopyrightWitness make specific plans to address this situation. In fact, CopyrightWitness also listed some services which closed down or became unreachable online, such as Copyright Vault (formerly available at <http://www.copyrightvault.com/>) or Song Protector (formerly available at <http://www.songprotector.com/>). ("Charter Gallant" is also mentioned, but during this review we were not even able to find any trace of its past existence.) See also, "Contractual contingency planning" at http://www.copyrightwitness.com/services/provision_policy (last visited on June 17, 2011): "Agreements are in place with our key personnel/directors, and written into our terms of service that guarantee that all registration contracts are honoured. These provision agreements specify that in the (very unlikely) event of a decision to close the company, there are named directors/personnel who are personally liable and responsible for ensuring all client contracts are honoured. This means that no matter what happens to our company, we will continue to ensure that your work is safely stored for the registration period, and that service administrators will still be available to produce evidence to help prove your copyright on request."

86 Some searches on GoogleGroups offer a preliminary evidence of this claim. The words "copyright" and "registration" returned 21,400,000 results; additionally, "copyright" and "evidence" gave 6,680,000 results; as a comparison,

“publishing authors” generated by digital and network technologies. Also consider that many registries are flexible in accommodating both the needs of authors who want to retain all or some of the rights. Lastly, consider that several registries offer basic accounts for free, hence a simple but strong argument in favor of private registration may be “why not?”.⁸⁷

The existence of a significant demand might suggest that a large portion of the market, which is currently satisfied by online private documentation systems, was once made up of consumers who did not create any kind of proof concerning the time of creation for their works and/or used homemade mechanisms, such as mailing to oneself a sealed envelope of the work and using the postmark stamp as a proof of the creation date. In fact, websites such as FreeCopyrightRegistration.com (<http://www.freecopyrightregistration.com>) explicitly state their services are “meant to be a modern alternative to the practice of sending a copy of your own work to yourself via mail post, sometimes called a 'poor man's copyright.’” Other websites also refer to this poor man’s copyright practice as an obsolete alternative to their own services.

If the above hypothesis is correct, private copyright registration systems may face obstacles to generate significant streams of profits. An additional hint of this situation indirectly comes from the choices of Creative Commons Corporation. Creative Commons Corporation itself had explored the possibility of starting its own digital copyright registration system between 2008-2009.⁸⁸ Former Creative Commons' CEO, Joi Ito, explained how their registry could fit within the exploration of “possible additional fee based, value added services that CC might be able to provide, as a means of helping the organization to become self sustaining while we continue to serve the public interest.” Creative Commons even provided some registration services on an experimental basis.⁸⁹ However, it

“copyright” and “infringement” returned 3,440,000 online discussions (and “copyright” and “violation” 3,030,000). Even if the semantic of the searched words within the discussions is uncertain, almost all the results in the first page returned by “copyright” and “registration” query actually concerned people wanting to register their copyright (with public or private registries). (Searchers performed on June 22, 2011.)

87 For instance, this is the argument used by Safe Creative in describing a “success story” of one of its users: “If there is no doubt the she would have been finally able to proof her authorship even if she had not previously registered [her] book with Safe Creative – with more or less trouble – it’s for certain that Safe Creative has played a key role to solve the problem in a fast, convenient and satisfying way. Thus, as we say, there is nothing to lose and yes there is much to gain by registering immediately and freely with Safe Creative.” (See *supra* note .)

88 E. Steuer, May 22, 2008, “Creative Commons explores a digital copyright registry system” (available at <https://creativecommons.org/press-releases/entry/8306>, last visited on June 21, 2011).

89 This was done within “The Creative Commons Network”: “A CC Network account has two relevant pieces: a badge you can include on your page that points back to your profile and a simple work registry where you can claim works you’ve

appears that this approach to help fund CC did not have satisfactory results since Creative Commons never launched a full-fledged registry.

Even as the number of registration services and registered works continue to grow, the measure of the online visibility of existing registries (e.g. their PageRank) and the absolute number of registered works remain quite modest. Safe Creative, one of the most successful private registries, hosts about 50,000 authors and some hundreds of thousands of registered works,⁹⁰ which are impressive numbers in absolute terms but not in comparison to overall creative content online. Particularly, the growth rate of registered works does not seem to be the same of online available content. In fact, online platforms for user-generated content (UGC) seem to have a quantitatively more significant role (than copyright registries) in making copyright documentation/information available to Internet users and to the general public (the order of magnitude of their archives being in the hundred of millions).

Our review of copyright registration and documentation systems seem to confirm what Michael Carroll already observed several years ago about online intermediaries, digital content, and licensing choices.⁹¹ Specifically, we are not facing a simple dis-intermediation process but actually a growth of new intermediaries. In the field of copyright documentation, the emerging model does not seem to be copyright registration but instead a provision of copyright documentation on online platforms for publishing/sharing one's works. In terms of network effects and technological infrastructure, it seems much easier for platforms such as Flickr or YouTube (or even Facebook) to integrate copyright registration features than it is for existing registries to become competitive with these platforms. This could happen through cooperation (such as between Jamendo and Safe Creative) or acquisition (for example, an online platform could simply buy a registry instead of internally developing a trusted registration platform).

5.2. *Private Copyright Registries as an Engine of Innovation*

Despite some limits, private copyright registries still represent a source of innovation in copyright registration. Mostly, private registries appear to be more innovative than public ones, or in any case, more flexible and capable of quickly adopting to innovative solutions.

created and made available under a CC license". See Nathan Yergler, October 16, 2008, "CC Network and Interoperable Copyright Registry Exploration" (available at <http://creativecommons.org/weblog/entry/10043>, last visited on June 21, 2011).

90 About the number of authors, see <http://www.safecreativ.org/observatory> (last accessed on 13 Jun 2011). About the number of registered works, see *supra* at note 53.

91 Michael W. Carroll, *Creative Commons and the New Intermediaries*, 2006 Mich. St. L. Rev. 45. Available at: http://works.bepress.com/michael_carroll/1.

The first example to support the above concerns the creation of backup copies. Even if private copyright registries can be considered at risk of disappearing (and the registration evidence with them), the use of digital fingerprinting and timestamps certified by third-parties (sometimes certified by public institutions or major private players in the domain of certification) reduces said risk. Moreover, public registries may be quite inexperienced when it comes to registrations in digital format. Actually, many copyright registries store their files only in hard copy or they digitize just the meta-data of registered works and not the complete files.⁹²

In contrast to this approach, several private documentation systems have explicitly stated they keep backup digital copies of registered works on two or more servers in two different geographical locations.⁹³ The hash-code generated at the moment of registration guarantees that the two copies are in fact identical to the registered work (and another copy is probably held with the right-holder for additional safe keeping). Even the simplest solutions offered by private registration systems (including the ones not using hash-codes or similar digital fingerprinting techniques) seem to include redundancy and often times more advanced backup solutions than public registries.

CopyrightRegistrationService.com, for instance, archives submitted works “onto two separate CD or DVD discs, to be stored at two geographically separate locations”.⁹⁴

Another basic advantage of private registries concerns the time to register. More specifically, private registries are quicker to provide (albeit maybe weaker) evidence of copyright registration. For instance, even with online registration, the time needed to receive a copyright certificate from the U.S. Copyright Office is at least 3-months⁹⁵. This slower time frame is attributed to the existence of formal and substantial checks performed by public registries and which are normally completely lacking for private copyright registries. With that said, public registries could easily provide the best of both worlds if they could immediately provide a timestamped certificate of deposit or other similar piece of preliminary evidence. Private registries which support the subsequent (paid) deposit of registered works with the U.S. Copyright Office (e.g. Safe Creative or, indirectly, MYOWS) already have such a service.

92 See the *WIPO Second Survey on Voluntary Registration and Deposit Systems* (*supra* note), question number 15 (only 21 respondents out of 85 stored files in digital form).

93 E.g., MYOWS.com does this. See <http://myows.com/faq.php> (last visited June 19, 2011).

94 See <http://www.copyrightregistrationservice.com/faq/registering.shtml> (last visited June 19, 2011).

95 Average Processing Time for e-Filing, as declared by the USCO on June 2011 (see <http://www.copyright.gov/help/faq/faq-what.html#certificate> last visited June 19, 2011). Consider that the average time needed to complete a public registration varies widely from country to country: see the *WIPO Second Survey on Voluntary Registration and Deposit Systems* (*supra* note), question number 13(f).

A third obvious advantage of private copyright registries concerns the payment methods which are typically more convenient for users (e.g., several registries, such as the FRAPA one, accept both wired transfers and PayPal payments which are both perceived as very convenient and secure by many Internet users).

Another significant example of innovation involves the fully automated registration of certain kinds of contents. This is because many websites, in particular blogs and news portals, have frequent updates. However, despite being frequent, these updates could be delivered on an irregular basis; there could be no updates on one day and three updates for another day. Some technical solutions have been developed to address this issue by allowing users to subscribe to the updates of a website, possibly aggregating news from different sources on the same client (or other online platform). The most widespread of these technologies is RSS (Really Simple Syndication, or Rich Site Summary). In other words, RSS is a web-feed format used to deliver frequently changing content including blog entries and news.

Some private copyright registries, such as Safe Creative and MyFreeCopyright offer automatic registration procedures to take advantage of RSS feeds. To enable this function, one would typically have to activate it on the registry and perform some simple modifications of his/her website (e.g. publish a verification code provided by the registry itself). Once the service is activated, the automatic feed registration is triggered by the publication of new posts on the site. Almost as soon as the posts are published, the RSS feed will make the registry aware of its existence and the post will get registered without further action needed from the right-holder.

Fully or semi-automated registration can also be obtained by using application programming interfaces provided by several private registries. In this case, the user or a third-party acting as intermediary can write a computer program or an entire online platform to interact with the registry.

Some private registries, particularly the ones we labelled as “commons oriented”, are especially good at providing a platform for third-parties to discover the existence of copyrighted works. Moreover, some private registries also offer galleries featuring (some of) the registered works, hence enabling another service which provides for statistics and graphics about the downloads of one's works, etc. (this is available for both registries, e.g. Safe Creative, and for community platforms offering copyright documentation systems, e.g. Jamendo). This is an example of a general principle, according to which fast and transparent private registries are probably the most apt among copyright registries to work in a complementary way with online communities.

To the opposite, most public copyright registries do not have online available search facilities.

Moreover, even if these facilities are available remote access to the works themselves is normally impossible.⁹⁶

5.3. Further Prospective Innovation

Today, private copyright registration systems are tools which offer evidence of prior ownership for a given copyrighted work. Given this technical and legal nature, it is only natural that these services advertise themselves more as an anti-plagiarism tool than as an anti-piracy tool. As a result, some copyright registration systems, directly or indirectly, offer monitoring tools (e.g. Safe Creative in partnership with Attributor.com) or support in assembling copyright infringement-related evidence (e.g. MYOWS).

It is easy to see how private copyright registration and private copyright infringement monitoring services can develop new synergies. For instance, one can already compare the digital fingerprint of a file he/she owns with the fingerprint of the works registered with some private registries. Even if this kind of query may be automated using public APIs,⁹⁷ the utility that can be derived from this feature is still limited. In fact, one would need to hold an exact copy of the registered work in order to find it. A single byte of difference, including the simple addition of a white space in a text, would inadvertently change the hash-code.⁹⁸ But more advanced and “smarter” fingerprinting techniques have already been developed and even more are under further development.⁹⁹ Therefore, it is not difficult to imagine that private copyright documentation systems could play a role in a world where (for instance) finding pictures or videos similar to a given sample is easier than it is today.

However, the most challenging part of a potential joint registration and monitoring service, both technically and organizationally, seems to be the monitoring leg. As a result, it is more likely that monitoring tools would expand into the registration market instead of the opposite integration (i.e. from copyright registration to monitoring).

96 See the *WIPO Second Survey on Voluntary Registration and Deposit Systems* (*supra* note), questions number 18 and 19 (only 16% of the respondents feature an online public search facility).

97 For instance, this is the case for Safe Creative.

98 To make an analogy with analogue fingerprints, it is as if an investigators, to find a match with a fingerprint in the database of the police, needed to use exactly the same pressure and the same ink which was used at the moment of collecting the fingerprint in the database. This kind of comparison would not be completely useless, because it could be used to verify the identify of a suspect once he is under custody, but such a comparison would not be capable of helping in finding a match between what is in the database and a fingerprint collected on the crime scene.

99 As an (already deployed) example of technology to automatically identify copyright protected content, see Google's YouTube ContentID (<http://www.youtube.com/t/contentid>, last visited on September 6, 2011).

Another field for potential innovation was suggested in an email interview with Registered Commons, which is the collaboration between private registries and collecting societies. If collecting societies allow their members to make use of Creative Commons licenses, they can track works which are freely licensed (and/or licenses under specific licensing conditions, such as the CC Non-Commercial clause). Private copyright registries could play a role in this situation, not just because current members of collecting societies may want to use open licenses, but because current users of open licenses may decide to use collecting societies to extract revenues from the commercial uses of their creations (the second scenario is likely to create a basis for collaboration).

Another innovation-related aspect indirectly emerged from email interviews with some private registry stewards, that is certain private registries may not have been developed in competition with public ones. Instead, the development of an innovative (even if not very profitable) private registry could be due to a “proof of concept” that in turn triggered innovation within public copyright registries. In such a context, and apart from purely altruistic motives related to increasing the efficiency of public registries, the business model of private developers may result in offering their expertise to public registries (if and when, they decide to follow the innovative path opened by the private players).

Finally, and despite the limited success of projects such as OSCRI or Semantic Copyright, in the field of interoperability requirements, the private registries seem to have progressed more than the public registries.¹⁰⁰

5.4. Can Private Registries Compete with Public Ones?

Considering the procedural advantages that law grants to public registries in some countries,¹⁰¹ if an author is mainly interested in the private benefits that he/she can directly derive from copyright registration then the use of a public copyright registry seems to represent the more reasonable way to satisfy his/her needs; unless the author is very sensitive to fees and in which case, private registries

100 See also the *WIPO Second Survey on Voluntary Registration and Deposit Systems*, summary of the responses, question number 4: “According to the responses, the majority of copyright registering bodies are not interconnected to other copyright data systems provided either by public or private entities.” (available at http://www.wipo.int/copyright/en/registration/registration_and_deposit_system_03_10.html.)

101 A well known example is provided by the United States of America (see below), however other countries offer procedural advantages to registered works or mandate the registration of rights in some situations (e.g. in the context of a transfer of rights or to initiate a judicial procedure). See the *WIPO Second Survey on Voluntary Registration and Deposit Systems*, summary of the responses, question number 11, available at http://www.wipo.int/copyright/en/registration/registration_and_deposit_system_03_10.html.)

are cheaper.

The advantages of public copyright registration are so clear in some countries (at least for national works) that even private registries recommend them. In fact, some services even discourage the use of their services to U.S. citizens. One site is quoted as saying “USA residents are advised to register their work through the U.S. Copyright Office, rather than through Copyright House.”¹⁰² Other private registries acknowledged the advantages of registering with the U.S. Copyright Office even for non-citizens. For instance, Safe Creative warns its users that “even though non-citizens can sue for copyright infringement in the U.S. without a registration being filed, they are only able to claim actual damages”, which can be difficult to quantify (while statutory damages are predefined and substantial). Safe Creative also uses this warning to encourage the usage of an additional service that it offers, the filing of a registration demand with the U.S. Copyright Office (easily done by Safe Creative from using the information that the users have already provided for private registration).¹⁰³

However, if an author has a strong interest in the indirect benefits that a widely researchable copyright registry may provide then the appeal of private registries increases. In fact, private registries are better at making registered information quickly available to the public and this may be more interesting for both those who are interested in quickly reaching the attention of potential partners and/or licensees and also for those who are interested in the benefits that the public may derive from a commons-oriented registry (benefits which may indirectly accrue to the right-holder, for example, higher visibility).¹⁰⁴ Moreover, and even if – in some countries – private copyright registries can have a hard time competing with public ones in terms of provision of evidence, the evidentiary aspect can be a secondary one, as shown by the fact that the most successful private copyright registries have been the ones offering more services to the general public in terms of possibilities of searching their registry, finding right-holders, finding potential licensors, etc. This seems to be supported by the PageRank of reviewed registries, by evidence (admittedly partial) about the number of registered works, and by the higher visibility of commons-oriented online registries.

Other successful registries seemed to be linked to communities of users such as associations, guilds, etc. In this domain, some public registries cannot compete effectively since their mission is to be a

102 See <http://www.copyrighthouse.co.uk/register/usa-residents.htm> (last visited on June 14, 2011) also explaining that “[t]he reason for this, is that once your work is registered with the U.S. Copyright Office, it is possible to recoup legal costs and statutory damages incurred due to copyright infringement.”

103 See <http://en.safecreative.net/faqs/the-u-s-copyright-office-registration/> (last visited on June 12, 2011).

104 The effects and targets of this increased visibility will also depend on whether one is considering a general purpose or a specialized registry.

fully independent, general purpose registry.

With all that said, it is quite possible that providing some form of informal *prima facie* credible copyright documentation is, for most online publishing authors, even more important than receiving the private benefits of copyright registration. In fact, even though several copyright registration systems offer free basic accounts, this does not seem to be sufficient in attracting a significant proportion of the enormous mass of Internet users creating and publishing original content. At the same time, online platforms which focus on making available UGC (such as Flickr for pictures or Jamendo for music) have been quite successful in generating a significant amount of copyright related information. So, once again, an ideal scenario is one where UGC platforms offer both trusted registration services and publicly accessible copyright documentation while private copyright registries focus on providing innovative features which are progressively incorporated into public registries and/or UGC platforms as they become standard.

In conclusion, it could be argued that public and private registries can coexist, since they satisfy different (and sometimes complementary) needs. In other words, there seem to be some overlapping and some competition between private and public registries, but also ample room for shaping them as two different and complementary categories of services: our survey does not take a specific position about this issue, but we encourage further analysis of this domain. Moreover, simple copyright documentation and (public and private) copyright registration can also coexist. In fact, the need to perform some formalities within official registries in order to derive strong benefits results in making private registries insufficient for some creators; whereas the absence of a strict duty to perform any copyright formalities makes private registries superfluous for some other right-holders.

6. Private Registries as Public Goods

All copyright documentation systems and, to a certain extent, all registries offering some information to the public provide (privately produced) public goods. In addition to the benefits which directly accrue to registering right-holders, these systems generate positive externalities in the form of information made available to the general public. The reason why this amounts to the private provision of public goods can be understood, for instance, if one considers the so-called “orphan works” problem that is clearly eased by many of the private services described in this survey.

It is not surprising that some of the copyright registries which offer more services to third-parties are the ones we defined as “commons oriented”. For example, this study mentioned the Creative People portal offered by Safe Creative which allowed the possibility for licensees to download a registration declaration. This feature of offering a rich gallery which allows any Internet user to download works

and the related registration declarations shows that the registry encourages its users to internalize the effects of mutual sharing. In fact, the registration declaration is not the same registration certificate that the registrant can receive; instead, it is a declaration issued to any interested third-party that includes pieces of information which could also possibly be used *against* the registrant. For example, the declaration could show that a licensee was granted a Creative Commons license at a given date even if the licensor later changed his/her mind. Additionally, it seems reasonable to conclude that many users of the commons oriented registries are, at the same time, creators and re-users (or, if you prefer, licensors and licensees). Moreover, this is consistent with the constituency of the registry itself which consequently offers public goods in the form of easily accessible works and reliable copyright information.

When considering that private copyright registries generate (more or less relevant) positive effects for society as a whole, it may be advisable for policy-makers to sustain these services. Nevertheless, the obvious alternative to the direct or indirect sustainment of private copyright registration and documentation systems is to reinforce public registration and documentation systems. Therefore, the question becomes “Which are the pros and cons of a public system in generating public goods?” According to our review, a con represented in many countries is the difficulty for public registration systems to remain up-to-date with respect to technological advancements. Another con is the costs: not just because public systems likely need financial support from public bodies but also because these systems are more expensive on average to their direct users than private ones resulting in a lower amount of copyright-related information.¹⁰⁵ Variety and diversity are attributes which are also appreciated by users. As a matter of fact, diversifying features is another point of strength for private registries. For example, Safe Creative is one of the leading registries (judged in terms of PageRank, links and number of mentions in online discussion groups) and shows a clear trend towards adding more and more features to its platform (although maybe limiting some features to only premium accounts). However, at the same time, other successful services (such as, MYOWS.com) seemed to follow the opposite approach; keeping their service very simple and their interface as clean as possible. In this approach, the demand of users who just want a quick, simple service and the demand

¹⁰⁵ We do not want to imply that public registries are inefficient or especially costly, but just that the fee for a copyright registration using a public registry is relatively expensive in comparison with most private registries. Also notice that several organizations which perform the function of a public or quasi-public registry also provide other functions. For instance, a public registry may be administered by a collecting society. About the efficiency and economics of collecting societies, see S.M. Besen, S.N. Kirby and S. Salop, *An Economic Analysis of Copyright Collectives*, in 78 Va. L. Rev., 1992, 383 ff.

of users who want a full-fledged customizable service would both be satisfied. This is an additional advantage as a result of having several private services competing amongst them.

However, there are also advantages for public registration, one of which is the high degree of trust and impartiality that public bodies own (or are supposed to own).¹⁰⁶ This would suggest that to support private registration systems, the first measure to take is to make explicit the requirements private systems would need to satisfy in order to qualify as a trusted and impartial source and, consequently, achieve an equivalent status to public registration systems so as to grant their users with the same advantages provided by public registration.¹⁰⁷

7. Summing Up

To summarize the emerging trends that this study has detected, it is reasonable to conclude that (i) private copyright registries are growing in terms both of the total number of existing registries and of the overall quantity of registered works while (ii) the quantity of information made available by private copyright documentation systems is growing at an even faster pace (in the numbers of hundreds of millions), thanks to platforms which allow the attachment of structured licensing information to UGC. Independently from their success in terms of registrants (in the numbers of tens of thousands), (iii) private copyright registries are an engine of innovation, not only because they offer new and more reliable or convenient services to their users (e.g., automatic registration or diverse payment systems), but also because (iv) they push other players including online platforms offering content and public registries to innovate both directly – through collaborations and partnerships – and indirectly – through competition and emulation (or simple imitation). It is also reasonable to expect that (v) this tendency to innovate will continue; thanks in part to synergies between copyright-registration and copyright-monitoring services and to the ongoing developments related to registry interoperability and Semantic Web technologies. Moreover, (vi) some additional ways of innovating may pass through explicit and direct technological collaborations between private registries (or their developers) and collecting societies or public registries.

Despite these points of strength, (vii) private registries, in the current legal scenario, can hardly compete with public ones and seem to serve some niche of right-holders between professional authors and casual creators. For the first group, (viii) private registries are not reliable enough,

106 Another, possibly major, pro could be related to the fact that public bodies may take their decisions taking into account the public interest, while private parties are supposed to maximize their profits. In this field, this could translate into a subsidy to certain kind of copyright registrations. However, we already discussed the fact that private parties, including some no-profit organizations, seem to be already capable of offering reliable free copyright registration.

107 About the advantages granted by public registration, see § .

especially since they cannot provide the trust and procedural advantages offered by official copyright registration (which is particularly true for countries still attaching significant consequences to the respect of copyright formalities performed within public registries, such as in the U.S.¹⁰⁸). For the latter group, (ix) private registries are considered unnecessary or simply ignored since copyright comes into existence without registration or formalities, and even a small amount of time which is necessary to perform a private copyright registration seems to exceed the potential gains it triggers.

Overall, (x) private registries are not only capable of providing a service to some categories of creators, but also serves as public goods to society as a whole (and prospective creators in particular) in the form of publicly accessible information on the registered works. However, for practical purposes, (xi) the relevant mass of content with associated copyright information are provided through copyright documentation features embedded in UGC publishing platforms (e.g., Flickr that allows for the choice of any CC license as a default licensing choice). Moreover, (xii) millions of pieces of copyright related information are also provided through individuals who upload content on their blogs, home-pages, and websites, the copyright-documentation meta-data offered by Creative Commons. These tools are already popular among online users since they may directly enhance one's work-visibility online (e.g., through the results of search engines recognizing these meta-data) and because they facilitate the re-use of licensed and tagged content on popular platforms, such as Wikipedia. Additionally, (xiii) the Open Linked Data approach, exemplified by dbPedia, could magnify this possibility.¹⁰⁹

As a final remark, it is important to stress that some potential evolutions of copyright law could dramatically modify the role of private copyright registries. Of course, public registries (or private registries with publicly-recognized effects) would become much more relevant if some copyright formalities were reintroduced as several scholars have recommended.¹¹⁰ But also, just the “simple”

108 This is peculiar to the US, but see also *supra* note .

109 See *supra* note and the accompanying text. About the Linked Open Data approach, see <http://linkeddata.org/> (last visited on July 15, 2011).

110 See (also for further references) S. van Gompel, *Formalities in the digital era: an obstacle or opportunity?*, in *Global Copyright: Three Hundred Years Since the Statute of Anne, from 1709 to Cyberspace*, L. Bently, U. Suthersanen & P. Torremans (eds), Cheltenham: Edward Elgar 2010, p. 395-424 and C. Sprigman, *Reform(aliz)ing Copyright*, *Stanford Law Review*, 57 (2004), 485-568. See also J.C. Ginsburg, *The US Experience with Copyright Formalities: A Love/Hate Relationship*, *Columbia Journal of Law and the Arts*, Vol. 33 No. IV (2010), J. Gibson, *Once and Future Copyright*, *Notre Dame Law Review*, Vol. 81 (2005) 167-244. 2005 (available <http://ssrn.com/abstract=740486>), M. Ricolfi, *Making Copyright Fit for the Digital Agenda*, 12th EIPIN Congress 2011, *Constructing European IP: Achievements and new Perspectives*, Strasbourg, 24-25 February 2011, European Parliament (available at <http://nexa.polito.it/new-copyright-20-paper-marco-ricolfi>) and L. Lessig's works from *Code and Other Laws of Cyberspace*, Basic Books, 2000 and *The Future of Ideas: The Fate of the Commons in a Connected World*, Random House, 2001 to *Remix: Making Art and*

approval of some of the more moderate proposals concerning “orphan works” could trigger the registration of significant masses of works.

Annex I – Private Copyright Registries and Documentation Systems

General Purpose Registries

MYOWS (<http://myows.com/>)

My Original Works, MYOWS, is a copyright management and protection website for anyone who creates an original work. From photographers to writers, designers, artists, journalists, and bloggers, from amateurs to professionals, *MYOWS* helps simplify the copyright protection process and offers tools to manage the protection of works.

MYOWS is free just by filling in basic contact information including an email address to register a new account. Registered users are given a basic account with a storage space of 1-gigabytes. If users wish to acquire more storage space or utilize some extra features, a fee can be paid to receive either a pro-account or +pro-account. After establishing an account and logging in, users can immediately begin to upload their works. Conveniently, *MYOWS* provides a sidebar with explanations and help information for each step of the process. Once a work is uploaded, users can add additional information including a title, category, and description of the work. After submitting this information, *MYOWS* creates a time and date stamp which is saved on their secure server as a hash code. Additionally, the work gets added to the user's *OWs* page where users can easily manage and license their works. To grant a license, users just need to fill out the information including the type, the name, the duration, and the text of the license. Users can also opt to email a certificate of their work which includes basic information such as the title, author, date of registration, and other legal information. They can also obtain a banner for their uploaded work which can serve as a warning and verification that the work is registered by *MYOWS*.

MYOWS is not only a copyright management system but can also be used as a support to copyright enforcement. Users can open a copyright case with *MYOWS* by filling in information regarding where the infringement is found including the URL and a screen-shot, and also the infringer's contact information. Once the information has all been entered, a Cease and Desist Letter is automatically generated and sent to the infringer.

MYOWS does not have a searchable database of registered works. Instead *MYOWS* is provided as a useful all-online copyright solution service for users to register, manage, protect, and enforce their creative works.

Numly (<http://www.numly.com/>)

Numly111 is a simple, non-repudiation copyright registry and license management service that assigns *Numly Numbers* (also known as *Electronic Serial Numbers*) for any and all creative digital works. *Numly Numbers* provide users with third-party proof of ownership for their works by the issuance of digital timestamps, digital fingerprints, and real-time verifications. Other services include tools to search, manage, track, and protect works registered through *Numly*.

Users can register their works by signing up for an account with a subscription fee which allows an unlimited number of digital registrations per month. *Numly Numbers* do not expire, even if the subscription is not renewed or the account is no longer in use. Once an account is setup, users can upload their work, enter information about the title, author, publisher, description, licensee's information, reference a URL, provide a contact email address, and choose a copyright license (All Rights Reserved or any of the *Creative Commons* licenses). *Numly* then generates a *Numly Number* along with a digital timestamp and a digital fingerprint (hash code) of the work. Additionally, *Numly* offers real-time reporting of who is viewing the work, from where, and what kind of ratings are being given to the work. Users can use this information to help enforce their copyrights and protect their works. The use of *Numly* services are made easier with *Firefox* plugins, *WordPress* plugins, *Apple* widgets, and open APIs.

Numly Numbers can be referenced by parent *Numly Numbers* to create a chain of works. This may be useful for multiple copies of a work issued under different copyright licenses to different licensees. *Numly* could also be looked at as a next generation *ISBN112* service (*ESBN*) since each copy of a digital work could have its own *Numly Number* that references the original parent work. Using *Numly's* APIs, users could even assign these numbers at the time of download or issuance. This would allow users to track each digital work and licensee of that work. For instance, this solution could allow users to create a digital marketplace exchange for reselling their e-books. Since each digital work could have its own *ESBN*, the copyright holder of the e-book could verify their copy of the digital work and assign it to someone else!

Numly has a search engine tool which allows users to search their database of over 11,000¹¹³ registered works by copyright license, content text, and/or keywords and tags. There is also an upload verification function which allows a work to be uploaded into the database to check if that digital work is registered with *Numly*. Once a work is located, users can view all the important information

111 *Numly* is a private corporation, based in the United States, and run by profits made from paid subscriptions.

112 International Standard Book Number.

113 As confirmed by *Numly* on March 3, 2011.

associated with the ownership and creation of the work including an option to contact the owner via a secure messaging system.

Numly is a service provider of digital rights management by bringing together the community of publishers, authors, designers, musicians, and artists without the high-end transaction costs. Additionally, *Numly* provides users with the option to manage their own content. *Numly* offers tools to protect and verify digital works, and works in conjunction with the related services: *Tagly*, *Raply*, *Docly*, *Vouchor*, *Tably* and *Sigly*.

Copyright Deposit (<http://www.copyrightdeposit.com/>)

Copyright Deposit (available only in English) and her French sister *Copyright Depot* (available only in French)¹¹⁴ have been in operation since 2003 and 2000, respectively, and both provide for the registration of texts, music, pictures, songs, software, websites, blogs, books, projects, etc., from all over the world. Their main objective is to offer “the most affordable way to have a registered copyright and to have a secure archive to protect your proof of work”, by offering a copyright certificate available on the Internet and keeping the works secured in their servers.

To begin, users can simply upload their work onto *Copyright Deposit's* online system. Fees will vary according to the currency chosen¹¹⁵ and users can upload up to 500 megabytes of archive space. After registration and payment, the user will receive a confirmation message with the invoice and copyright number, which entitles the user to use one of the many different *Copyright Deposit* seals and logos on their work, or as an alternative (if the seal does not fit the design), a statement indicating that the work has been registered with the service (e.g., “*Copyright registered by CopyrightDeposit.com number 00XXXX*”). The copyright registry then becomes available online at a specific and permanent web address which contains basic information about the work, including author (dependent on whether the registrant has chosen to make this information public), date of registration, type of work, title, and a brief description.

In cases of litigation and as evidence for the trial, *Copyright Deposit* provides (at no extra charge)¹¹⁶ a copyright certificate signed by a notary public within the area of the author(s) plus all files and documents that were received for storage.

Copyright Deposit also provides for a basic search engine which allows users to look for specific works using the name of the author(s)/work, type of work, or by copyright number. However, the

¹¹⁴ Both copyright registries are based in Canada.

¹¹⁵ Example of fees include EUR 10 for Europe, US \$15 for the United States of America, or GBP 8 for the United Kingdom.

¹¹⁶ Copyright Deposit covers the fees related to a notary public up to a limit of US \$350.

content of each work always remains confidential, only the copyright certificate with the information mentioned above is accessible.

Copyright Deposit aims at offering a simple, fast, cheap and reliable registration and storage service, facilitating users to easily assert, protect and enforce the copyright in their creative works. *Copyright Deposit* claims to currently “host thousands of copyrights,” however more detailed data is not currently available.¹¹⁷

MyFreeCopyright (<http://myfreecopyright.com/>)

MyFreeCopyright is an online copyright registration service that utilizes digital fingerprints, emails, and logs to provide proof for users of their literary, musical, dramatical, graphical, audiovisual, and architectural works, including web pages and blogs.

MyFreeCopyright captures the unique digital fingerprint of each file, then sends a copy of the fingerprint to the user by email. The email contains the verified date of the submission and the fingerprint is a verification of the digital creation, while the email address serves to verify that the work belongs to the user.

MyFreeCopyright also stores a copy of the fingerprint on their server which allows users to verify the copyright through the website. Users can verify copyright information by submitting a file and entering the MCN (which is a unique number that is assigned to all copyrights registered with *MyFreeCopyright*) or by entering the URL to a web-page or blog.

MyFreeCopyright offers a registration badge that can be placed on a website or other internet location, which links to a copyright verification page. Additionally, *MyFreeCopyright* provides a special service for users who upgrade to a yearly payment plan, that is the capability to restore stored work in case of a system crash or lost of data.

Since copyright registration in many jurisdictions can be a lengthy and costly process, *MyFreeCopyright* also advertises its easy-to-use system as an alternative registration tool to protect an original digital creation while other options are examined.

Copyright Registration Service (<http://www.copyrightregistrationservice.com>)

Copyright Registration Service (CRS) is a global online service that allows registration of any original

¹¹⁷ When asked about the number of registered with the service in the context of our review of private copyright documentation systems, *Copyright Deposit* declined to answer on the basis of trade secret reasons. The website does however provide some information about the origin of copyright registrants: USA 36%, UK 24%, Canada 14%, India 12%, others 14%.

creative work which was recorded in an electronic format and created in one of the 162 nations who are part of the Berne Convention¹¹⁸. The international diversity of the service is reflected by the fact that all service fees can be paid in many different currencies (i.e., AUD, GBP, CAD, EUR, NZ, USD). Users can register their works online since 2006 (before that date it was possible to register works paper based sent via mail) for a fee determined by the length of registration required (e.g., 4-years at US \$45; 8-years at US \$80; 12-years at US \$110; 15-years at US \$125)¹¹⁹. Prior to the expiration of the registered work, an email reminder will be sent to the registered email address warning of the impending expiry and offering the chance to renew. Users can submit any work as it is intended to be presented and hence, also as a collection, but not as a sample, plan, or description.

No check is done by *CRS* once a work is uploaded to their server therefore, the service does not verify or guarantee whether the work infringes on any existing copyrights. A registered work can be retrieved by the user for a fee determined by the requested type of retrieval (e.g., by email or postal mail). Once registered, no changes can be made to the work or to the details relating to it. However, in case of an error during registration, such as a typographical error, the user may request to correction within 28 days of registration with an additional payment.

In an effort to encourage copyright protection and use of their services, *CRS* runs an affiliate program which allows users to place a link on their website and for every new registrant who clicks through the link, the user will earn US \$10.

CRS also has a search function available to the public to verify that a work claiming to be registered with their service is really registered. No other information about the work including author information is provided.

Patamu (<http://www.patamu.com/>)

Patamu, available in English and Italian, is self-described as an independent project geared towards musicians, photographers, writers, artists, journalists, bloggers and researchers who seek to disseminate their work, but at the same time, wish to protect their works from plagiarism. In order to achieve this goal, *Patamu* provides users with digital timestamps to certify a date and time of creation to validate the paternity of a creative work.

Patamu offers several different account types which vary according to the quantity of digital timestamps required and the digital size of the works. For light users, *Patamu* offers a free account

¹¹⁸ The website puts significant emphasis on the fact that this will allow the work to be protected in all other Berne Convention nations.

¹¹⁹ See <http://www.copyrightregistrationservice.com/help/charges.shtml> (last visited on July 21, 2011).

which entitles users up to 12 timestamps/year, allows uploads of single files up to 15 megabytes, and has a total online storage of 120 megabytes. For a more advanced user, an Advanced Account (available for a fee) entitles users up to 60 timestamps/year, allows uploads of single files up to 40 megabytes, and has a total online storage of 1 gigabyte. The most advanced option is a Pro Account (available for a higher fee) which entitles users up to 150 timestamps/year, allows uploads of single files up to 80 megabytes, and has a total online storage of 2 gigabytes.

Prior to uploading their works, users have to fill-in a formal Declaration of Paternity stating all the relevant information for the identification of the work including the name of the creator(s), date and place of birth, email, and the type of license to be associated to the work. In this context, users can choose whether to license the work through any of the Creative Commons licenses or to retain All Rights Reserved. Subsequently, both the declaration and the work must be uploaded together in a .zip file. *Patamu* then provides a digital timestamp for the work in a separate file. The file is stored together with the .zip file on *Patamu's* system. For convenience, users can download the digital timestamp together with a free software that enables the reading of the timestamp file.

Patamu seeks to encourage non-commercial dissemination and use of works uploaded into its system by linking the works to *Creative Commons* licenses and providing the means to demonstrate the paternity of the work which will then make it possible to deal with cases of plagiarism.

General Purpose, Commons Oriented Registries

Safe Creative (<http://www.safecreative.org>)

*Safe Creative*¹²⁰ is an online global copyright registry, freely accessible to anyone for use, and available in both English and Spanish. It provides users a place to register their works so a digital timestamp of creation and verification of authorship can be established. For others, *Safe Creative* is a one-stop place to find information about a work including the associated rights.

After signing up for a free account, users can upload a work, add any additional information including title, authorship, and language, specify information related to moral rights, and also choose a license. Once the information has been submitted, the system provides a registration number, labels, barcodes, and a URL, which all uniquely identifies the registration information of the work. Users can receive various levels of trust, from 1 (email address verification) to 3 or 4 (users using an identity certificate issued by a trusted company, such as Verisign; or user accesses using a digital identity certificate issued by a public administration – at the moment only Spanish ones are accepted). For a

¹²⁰ *Safe Creative* is a private company with its main headquarters in Spain and an office branch in the United States.

fee, users can also upgrade to a Premium Service account which has a few notable features including the ability to designate multiple authors for a single work; bulk registering; monitoring of the work through *Attributor.com*¹²¹; availability of an Automatic Registering Tool; availability of a plugin for Internet Explorer or Firefox browsers to directly register articles, blogs, and websites; and lastly, the option to directly sell and license works to third-parties.

Safe Creative also serves as a searchable database including the works of over 50,000 authors¹²² marked with clear information on rights and authorship. We were allowed to access confidential internal data showing that the total number of registrations is in the order of the hundreds of thousands, while the monthly growth of registered works is in the order of the tens of thousands. The advanced search function provides users with an easy method to find works which can be downloaded, distributed, allowed for commercial use, allowed for derivative works, purchased, licensed, etc. *Safe Creative* also created <http://www.creativepeople.sc>, a virtual gallery which showcases the registered works that authors have decided to make available online. *Safe Creative's* database offers a simple way for third-parties to track down important information about a registered work and also provides a quick way to get in contact with the owner of the work.

Safe Creative actively works towards simple, standardized solutions to foster open semantic understanding of contents to be self-identified and through queries in distributed registration databases. *Safe Creative's* collaboration with several existing initiatives¹²³ builds a global knowledge management community.

Registered Commons (<http://www.registeredcommons.org/>)

*Registered Commons*¹²⁴ is an online copyright registry, available in English only, which offers a free and easy solution for users to record authorship and obtain digital timestamp of created works including photographs, poetry, a series of videos or music, web pages, and even an open source software project. This service is essentially aimed towards users who wish to share their creative works: the default choice for licensors is to make registered works available for download.

Users sign-up by providing basic contact information, including an email address, and receive a

¹²¹ A copyright monitoring company (see <http://attributor.com/>).

¹²² See <http://www.safecreativ.org/observatory> (last accessed on June 13, 2011).

¹²³ *Safe Creative* has an extensive partners list and collaborates with companies such as *Magnatune*, *Jamendo*, *bubok*, *Librovirtual.org*, *Glumby*, *TalentArt*, *Thounds*, and more (<http://en.safecreative.net/partners/>).

¹²⁴ *Registered Commons* is provided by a public-private partnership with the Vorarlberg University of Applied Sciences and with co-operative organizations, mainly the open source consultancy, osAlliance.

standard account which allows registration of up to three works per year. Users have the additional option to upgrade their account for a fee and receive unlimited registrations in a one-year period. Once an account is established, users can upload their work and select a Creative Commons license, GNU General Public License or Sampling license, or maintain All Rights Reserved. Users also have the option to assign the work to the Public Domain. After a license is chosen, users can enter more details about the work including who is the author and contributor, what is the title, media type, language, and even add details about moral rights¹²⁵. When all the information is provided, a PDF certificate is generated and available for download or linking. The certificate contains all metadata, user information, timestamp, and a hash code. For an additional fee, users can order an optional paper certificate containing the same information.

Two additional features include double licensing and trust levels. Double licensing essentially means a user can offer a work under an additional commercial license. *Registered Commons* also offers full clearing and payment handling between the parties involved. Trust levels means users can gain additional creator credibility by using a Web of Trust service from *CAcert* to establish more reliability that the identity of the person who uploaded a work coincides in fact with the “creator” as described in the registration certificate.

With over 10,000 registrations to date¹²⁶, *Registered Commons* also serves as an important search tool to find and verify creative works. The easy-to-use search function allows works to be searched by numerous different fields including the title, registrant, description, publisher, creation date, coverage, source, hash code, language, permission URL, and many more. Once a work is found, important information is viewable to the public, including who the owner is, how to contact the owner, if there is an option to purchase a license, how the work can be used according to the license, and whether there are other works with the same type of license.

As a reliable registration procedure, *Registered Commons* aims to advance the potential of open licensing. *Registered Commons* empowers users with the flexibility and tools to better enforce usage rights. *Registered Commons* also provides users with evidence of both authorship and the time of creation in the event of a dispute. Additionally, *Registered Commons* serves the general public by allowing anyone to easily verify and understand information about a work and its licensing terms.

¹²⁵ For example, you can describe “where your work shall or shall not be used (e.g. by organisations, that support production of weapons)”. But *Registered Commons* makes clear that this kind of statement “is not part of the legal license text.” However, anyone who looks up your license will see it.

¹²⁶ As confirmed by the service on March 7, 2011.

CreativDepot (<http://www.creativdepot.at/>)

*CreativDepot*¹²⁷ is a private copyright registry that offers web-based tools for users to obtain a secure registration to prove authorship of a creative work. With *CreativDepot*, users can improve visibility and easily manage the rights of their works. *CreativDepot* is available in both German and English.

Users can sign-up for an account by entering simple contact information. After which, registered users are then allowed up to three upload of works per year. If a user wishes to upload more works, a free code can be obtained from any of the vouchers listed on the *CreativDepot* website. To register a work, the user can upload the work (e.g. text, graphic, design, image, video, concept) and provide the title, author, and define the conditions of use by designating a *Creative Commons license*, Sampling license, or GNU General Public license, or assigning the work to the Public Domain, or maintaining All Rights Reserved. Once all information is entered, a certificate with the digital timestamp and hash code is uniquely generated for the work. The user also has the additional option to order a printed and signed paper certificate. The digital timestamp is stored for 35 years by *A-cert* while the hash code is stored for 7 years.¹²⁸ *CreativDepot* also recommends that users store a copy of both their work and the certificate.

Additionally, registered works can be made publicly accessible through *CreativDepot* which allows any searchers to easily locate and understand information about a work including whether and to what extent any rights are granted to third-parties.

Specialized/Sectoral Registries

Writers Guild Of America, West Registry (<http://www.wgawregistry.org/>)

Writers Guild of America, West Registry (WGAWR) is an American service, available only in English, provided since 1927 to members of the *Writers Guild of America* and also to registered authors of the general public. *WGAWR* provides a dated record of a writer's claim to authorship for a particular literary material, but does not make comparisons of registration deposits, bestow any statutory protections, or give any legal advice.

Works are accepted in several different formats, and can be submitted by mail, hand-delivery, or online. The registration fees vary according to member¹²⁹ or non-member status.¹³⁰ The works are

¹²⁷ *CreativDepot* is a service provided by *Creativ Wirtschaft Austria*, a company located in Austria.

¹²⁸ See <http://www.creativdepot.at/> (last accessed on June 14, 2011).

¹²⁹ Currently there are approximately over 12,000 *WGA*-members in good standing.

¹³⁰ Registration fees are US \$20 for non-members and US \$10 for *WGA*-members.

kept by the *WGAWR* for 5 years, and can be renewed for further storage, otherwise the work will be destroyed. Works that are mailed or hand-delivered, remain in the same form as submitted, and are stored in a secure depository. Works submitted online are stored in a non-rewritable digital format in a secure location. *WGAWR* also allows the registering of draft works. Once a work is registered, the file cannot be updated or changed; new drafts should be re-registered when significant additions have been made.

WGAWR remains a neutral third-party and can be called upon to submit the author's work as evidence for any Guild-related or legal proceedings. Although *WGAWR* cannot prevent plagiarism, it can act as a reliable third-party to attest to registered material and confirm the date of registration.

After a work has been registered, only a listed author may access the records or information pertaining to the registered work. All requests must be made in writing from the author and must be accompanied by a photo identification. Requests can also be submitted by mail, facsimile, or delivered in-person. Additionally, request for copies of works can also be purchased by the listed author.¹³¹

WGAWR does not have a search function available to the public and it currently does not provide public information related to the registered author.

FRAPA Format Registry (<http://www.frapa.org/format-registry/>)

Established in 2000, the *Format Recognition And Protection Association (FRAPA)*¹³² is an international association dedicated to the protection of formats. With this goal, *FRAPA's* main service, to both member and non-members¹³³, is to provide online or paper-based registration of format proposals. Registration with *FRAPA* provides the user with a signed declaration by a neutral third-party custodian who will attest to the date the format was received and produce a copy of the original stored registered submission as needed. *FRAPA* services are currently only available in English.

FRAPA members enjoy a reduced rate to register their formats and also have the option to register online or through a paper submission. Non-members may only register online and pay the full rate for registration.¹³⁴ The protection offered by the online registration and paper registration are the same. The files registered with the *Online Format Registry* are stored at the registry's server and there is no annual fee or refresher fee to store the registered material.

¹³¹ Several additional services and support are given to members (e.g. *Legal Arbitration Process* and *Rewrites Arbitration*).

¹³² *FRAPA's* headquarters are based in Germany, and consists of a management board and a steering committee.

¹³³ The fees to become a member varies depending on the annual turnover and can range between EUROS 500 to 5000/year.

¹³⁴ Currently (June 14, 2011) the registration rates are EUROS 20 for members, and EUROS 50 for non-members.

FRAPA members also benefit from two useful tools accessible only to members: (i) a Price Calculator, which calculates a suggested price for a work; and (ii) a Contract Generator which guides users to review clauses and revise information to suite their own contracts. Additionally, members are provided with a dispute resolution service in cooperation with *WIPO*¹³⁵ and a hotline support via telephone or mail for help with license information and contracts.

Currently, *FRAPA* has 44 members¹³⁶ from around the world and *FRAPA's Paper Format Registry* contains more than 1000 format proposals¹³⁷ in various forms: treatments, scripts, storylines, DVDS, etc.¹³⁸

Songrite (<http://www.songrite.com>)

*Songrite*¹³⁹ is a global copyright registration service that holds and stores copies of songs, music, and lyrics submitted by both amateur and professional songwriters and composers from all over the world. When users deposit their work at *Songrite*, an *English Copyright Registration Certificate*¹⁴⁰ is issued to provide legal evidence for copyright holders to help prove copyright ownership in case of infringement, plagiarism or other copyright disputes.

Songrite's registration system is available through online uploading¹⁴¹ and the fees vary according to the type of certificate required and the numbers of works to be registered as a single package. The three type of certificates available are:

- ▲ CR3a: suitable for a single song or one set of lyrics;
- ▲ CR3m: for registering between two and three songs or sets of lyrics;
- ▲ CR3x: allows registration between two and fourteen songs or sets of lyrics.

Works submitted are stored in the user's individual online folder and then added to a copyright database, creating a record of the basic facts of the work, i.e., the author(s), the composition, and the

135 See http://www.wipo.int/pressroom/en/articles/2010/article_0009.html (last accessed on June 14, 2011).

136 See <http://www.frapa.org/about/members/> (last accessed on June 14, 2011).

137 See <http://www.frapa.org/format-registry/paper-format-registry/> (last accessed on June 14, 2011).

138 No information is provided about the *Online Format Registry* or on the users that registered their works with this service.

139 *Songrite* is based in the United Kingdom.

140 Despite the name *English Copyright Registration Certificate* and the fact that the service is based in the UK, *Songrite* advertises itself as a global copyright registry, which administers and secures "the copyright ownership of all music and lyrical based works within the USA, Canada, Europe, Australasia and Asia, covering more than 95% of the globe".

141 The online upload facility offers the advantage of safely transferring files and considerably reduces the time taken to deal with copyright registrations obtained through regular postal mail, however, users still have the traditional option to submit their work by postal mail.

date registered. A duplicate of the work is also stored separately in a secure location. The storage contract is valid for 10 years¹⁴² and the copyright certificate is issued for the life of the author plus 50 years.¹⁴³ Differently from most similar services, “[a] reviewer checks to ensure your work is complete in its content and the registration form details are checked for accuracy” and “[i]f necessary, the reviewer may suggest changes are made to comply with copyright regulations”,¹⁴⁴

Songrite defines itself as a system for a simple, speedy, cost-effective, and efficient way to formally obtain the copyright of a song or composition. The service is described as most beneficial to copyright holders who wish to make their work immediately available to large audiences while still securing their rights.

Photographer Registry (<http://www.photographerregistry.com/>)

Photographer Registry is a joint effort of different photographers associations of the United States.¹⁴⁵ Unlike many of the other services or tools described above, *Photographer Registry* neither tracks images on the Internet nor develops tools aimed at their identification. It is not intended to facilitate the licensing of content and it does not grant copyright certificates. Instead, what the service does provide for is a simple way to locate photographers and studios through its large database of registered photographers. Registration for photographers is for free and the site keeps a record of their most up-to-date business information. When a users needs to request authorization for the use of a particular work found elsewhere where there is no contact information except for a name, the user can use this site's search tool function to locate the photographer.

The main purpose of this initiative is to help retailers, consumers, media, and any other user who wants to reproduce a copyright-protected image avoid the risk of copyright infringement by providing means to locate a photographer or studio.

¹⁴² In accordance with the guidelines in the *Authors Secure Storage Contracts*.

¹⁴³ This is arguably related to the fact that the minimum copyright term granted by Member States of the Berne Convention is the life of the author plus 50 years, so that the work will be protected worldwide for at least 50 years. Obviously, several countries will actually recognize a longer copyright term.

¹⁴⁴ See http://www.songrite.com/Pages/Our_Services.html (last visited on September 6, 2011).

¹⁴⁵ Namely, the *American Society of Media Photographers (ASMP)*, the *American Photographic Artists (APA)*, the *Editorial Photographers (EP)*, the *Commercial Photographers International (CPI)*, the *National Press Photographers Association (NPPA)*, the *Photo Marketing Association (PMA)*, the *Professional Photographers of America (PPA)*, the *Sport and Events Photographers Society (SEP)*, the *Student Photographic Society (SPS)* and the *Stock Artists Alliance (SAA)*.

C-Registry (<http://www.c-registry.us/>)

C-Registry, also known as *The Copyright Registry*, is an Internet-only service¹⁴⁶ whose key feature is to track images on the Internet. The site is available in English, French, German, and Spanish. By using *C-Registry* “[u]sers can find the copyright owner from their creative works online, [c]reators and rightsholders can find online uses of their creative works.” According to its creators, *C-Registry* was specifically developed to anticipate the effects of the United States proposed legislation about “Orphan Works”.

After successful registration, *C-Registry* offers users two core services for free. First, users are able to find and contact photographers from copies of their images available online provided that (i) the image either contains appropriate IPTC/File Info or the rightsholder has registered that specific image in the *C-Registry* database, and (ii) the website using the image is not hiding access to files at that site. The second service provided free to users is the ability to search and find online uses of their images, including the URL of the website of use, the URL where the image is stored, and the date range in which each image is discovered at those URLs. Additional services, such as report verification and providing a testimony in connection with works in the *C-Registry* database may be subject to variable fees.¹⁴⁷ *C-Registry* also provides a new form of copyright notice called *Veripixel*. This copyright notice is a discrete series of coloured pixels located on the upper left corner of an image and is derived from a unique ID which is almost limitless (16 million to the sixth power). *Veripixel* is similar to an embedded IPTC/File Info but is visible in the image itself.

Although it is not a registry that stores copyrighted works, what *C-Registry* offers is a free and easy solution to state copyrights in creative works. *C-Registry* is a resource for copyright holders to instantly find copies of their work anywhere on the Internet, making it easier to track and discover unauthorized uses. Moreover, the identification process and tracking tools can also be applied to any works, such as videos, musics, mash-ups, and many more (although the *Veripixel* tool only works on bitmap-type images).¹⁴⁸

¹⁴⁶ *C-Registry* is owned by StockPhotoFinder.com, Inc.

¹⁴⁷ See <http://c-registry.us/pages/index.php?pID=20> (last accessed on February 24, 2011).

¹⁴⁸ *C-Registry* is working to expand its focus to include audio and time-based media in the future.

Private Documentation Systems

Open Library (<http://openlibrary.org>)

*Open Library*¹⁴⁹ is an open project, dependent on the collaboration of the public, to build a catalog of information on books. Essentially, *Open Library's* goal is to "provide a page on the web for every book ever published."¹⁵⁰ The aforementioned page provides important information about a book such as the title, author, publishing company, year of publication, number of chapters and chapter titles, available editions, available formats, number of pages, dimensions of the book, ID numbers, and whether an electronic version is available for reading, and alternatively, where you can borrow or buy the book. *Open Library* has information pages on over 23 million books¹⁵¹ and about 1.7 million books are available as a digitized book.¹⁵²

The use of an open semantic wiki-model allows anyone to create new pages, edit details about existing pages, see the history of revisions to a record, and most importantly allows users to contribute their knowledge about a book.

Open Library's search function allows users to search by fields such as title, author, ISBN, subject, place, person, publisher, and even words found inside the books. Searches can also be limited to return results of only e-books. Additionally, book recommendations can be found by browsing user-created lists.

Open Library is an important tool to obtain and share copyright information on books. Just by discerning the details of a book, users can determine or make conclusions on a book's copyright status. *Open Library* effectively brings together worldwide public resources to generate new data that will be useful to the global library community.

WorldCat Copyright Evidence Registry (<http://www.worldcat.org/copyrightevidence/registry>)

WorldCat presents itself as world's largest network of library-based content and services including a comprehensive catalogue of books, videos, serial publications, articles, recorded books and music, electronic books, sheet music, genealogical references, cultural artefacts, digital objects, websites, and more. *WorldCat's* website is available to navigate in Dutch, English, French, Spanish, and Chinese. However, *WorldCat's* records also serve a diverse community and materials are available in

149 *Open Library* is a project of the Internet Archive (www.archive.org), a non-profit organization in the United States. *Open Library* is funded by donations, and grants from the *California State Library* and the *Kahle/Austin Foundation*.

150 See http://wiki.creativecommons.org/Case_Studies/Open_Library (last accessed on June 14, 2011).

151 See <http://openlibrary.org/help> (last accessed on June 14, 2011).

152 See <http://openlibrary.org/help/faq#what> (last accessed on June 14, 2011).

many more languages including Arabic, Bengali, Cyrillic, Devanagari, Greek, Hebrew, Japanese, Korean, Latin, Tamil, and Thai scripts. For libraries, *WorldCat* is a solution of products and services for various aspect of library management. For users, *WorldCat* is a source to search thousands of libraries and easily locate items of interest.

The *WorldCat Copyright Evidence Registry (CER)* is an online database which builds upon the foundation of *WorldCat* to create a union of copyright information on books.¹⁵³ In combination with *WorldCat*'s more than 100 million bibliographic records held in thousands of libraries worldwide, *CER* also relies on a community of people, libraries, and other organizations to discover and share information about the copyright status of books. *CER* does not provide definitive conclusions or assertions about the copyright status of a book; instead *CER* can be used to find extensive information about a book and aid in an investigation of its copyright status. Users can search for books by title, author, ISBN or OCLC number, and limit the searches by publication year and country of publication. By utilizing the information, tools, and community of *CER*, users are supported in drawing their own conclusions on the copyright status of a book.

The goal of *CER* is to encourage a cooperative environment to discover, create, and share copyright evidence through a collaboratively created and maintained database. *CER* and the community are working together to efficiently gather information, effectively produce good results, eliminate duplicate efforts, reduce the time and cost of copyright status investigation, and provide information to the widest audience possible.

Platforms Including Documentation Systems

Flickr (<http://www.flickr.com/>)

Flickr in its own words, is "the best online photo management and sharing application in the world"¹⁵⁴. Launched in 2004, just one year later, *Flickr* had over 245,000 users with 3.5 million uploaded photos¹⁵⁵. As the site continued to grow at a rate of 5-10% a week, it was soon acquired by Yahoo¹⁵⁶.

Flickr provides users with tools to post, manage, and organize their photos (and videos) directly on

¹⁵³ *WorldCat* and *WorldCat Copyright Evidence Registry* are non-profit library cooperatives run and built by *Online Computer Library Center (OCLC)* through a collaborative effort from participating libraries. Also see *supra* note .

¹⁵⁴ See <http://www.flickr.com/about/> (last accessed February 7, 2011).

¹⁵⁵ J. McCLELLAN, "Tag team", in *The Guardian*, 3 Feb. 2005, available at <http://www.guardian.co.uk/technology/2005/feb/03/onlinesupplement2> (last accessed February 8, 2011).

¹⁵⁶ See <http://www.crunchbase.com/company/flickr> (last accessed February 10, 2011).

their website. *Flickr* not only hosts the photos but also gives users the possibility to display them; whereas around 80% of the photos on *Flickr* are viewable to the public¹⁵⁷. Users can even share their photos to allow others to download a copy. Users can also opt to label their photos under a *Creative Commons* licence¹⁵⁸, where sharing and downloading features are available by default. At present, *Flickr* hosts over 174 million photos under a *Creative Commons* licence¹⁵⁹.

To facilitate the process of sharing photos, *Flickr* offers tools to increase visibility or to easily find specific content through the use of metadata in the form of “tags”¹⁶⁰, EXIF data, or by user’s notes and comments of the photo. EXIF data, which is supported by some of the most used formats of digital image files including RAW, JPEG and TIFF, provides characteristics and information on the device used to capture the image (i.e., manufacturer, model, software) and its technical aspects (i.e., aperture, focal length)¹⁶¹. Unlike EXIF data (which is predetermined information), tags, notes and comments can be added by the uploader or also by any other *Flickr* user.

The Flickr Collection, is a collaboration of *Flickr* and *Getty Images* to build a collection of photos from *Flickr* users ¹⁶². *The Flickr collection* has two types of licenses available:

1. Rights-Managed (RM): a license with restrictions on usage, such as the limitation on size, placement, duration of use, and geographic distribution, according to the intended use. Exclusive rights for the use of photos are available for some rights-managed photos.
2. Royalty-Free (RF): a set-price license based upon the file size of the purchaser. The end-use is not specified (though certain types of uses that are defamatory, pornographic or illegal are banned) so the purchaser has a lot of flexibility in how they may use the photos.¹⁶³

Getty Images requires photos placed within their collection to be exclusively licensed through them which results in an “All Rights Reserved” label of the photos on *Flickr*. There are more than 120,000 photos from *Flickr* users which are licensed by *Getty Images*¹⁶⁴.

Flickr also features *The Commons*, a program with the aim to increase access to some of the world’s

157 B. STONE, “Photos for the Masses” (extract), in *Newsweek*, 11 Mar. 2005, available at <http://www.flickr.com/press.gne> (last accessed February 8, 2011).

158 See <http://creativecommons.org/licenses/> (last accessed February 9, 2011).

159 See <http://www.flickr.com/creativecommons/> (last accessed February 11, 2011).

160 See <http://www.flickr.com/help/tags/> (last accessed February 8, 2011).

161 See <http://www.flickr.com/help/faq/search/?q=EXIF+data> (last accessed February 8, 2011).

162 See <http://www.flickr.com/gettyimages/> (last accessed February 9, 2011).

163 See <http://www.flickr.com/help/faq/search/?q=getty+licence> (last accessed February 9, 2011).

164 See http://www.gettyimages.com/Creative/Frontdoor/FlickrPhotos?isource=direct-entry_flickr_frontdoor_che (last accessed February 9, 2011).

most important photography collections and to provide a way for the public to contribute information and knowledge of the photos¹⁶⁵. In these archives, the participating institutions¹⁶⁶ make *Flickr* photos available if they are believed to be under no copyright restrictions because either (i) the copyright has expired, (ii) the copyright was injected into the public domain for other reasons, such as failure to adhere to required formalities or conditions, (iii) the institution owns the copyright but is not interested in exercising control, or (iv) the institution has legal rights sufficient to authorize others to use the work without restrictions¹⁶⁷. In some instances, a participating institution may not be the right holder under copyright law, therefore, it can neither grant permission to use a photo nor provide a guarantee that the photo is in the public domain. In this situation, the institution supplies a link to a “Rights Statement” that specifies its policy on the use of the content provided (particularly commercial usage)¹⁶⁸.

Although there are no official numbers, *Flickr* was estimated to have over 40 million users at the end of 2009¹⁶⁹ and on September 18, 2010, the 5-billionth photo was posted, accordingly the upload rate was more than 3,000 photos every minute¹⁷⁰.

Jamendo (<http://www.jamendo.com>)

*Jamendo*¹⁷¹ is the one of the most well-known websites specializing in free and legal downloads of music under *Creative Commons* and other open licenses (such as the *Free Art* one). *Jamendo*'s music website and community of music authors offers a way for artists and listeners to network. Through *Jamendo*, listeners can legally download, copy, share, modify, or make commercial use of music (depending on the license). Its website, available in eight languages including French, English,

¹⁶⁵ See <http://www.flickr.com/commons/> (last accessed February 9, 2011).

¹⁶⁶ Currently, the participating institutions include *The Library of Congress*, *Brooklyn Museum*, *Smithsonian Institution*, *National Library NZ*, *New York Public Library*, *Getty Research Institute*, *The U.S. National Archives*, *The National Archives UK*, *Cornell University Library*, *NASA* and many other World-class libraries and archives.

¹⁶⁷ See <http://www.flickr.com/commons/usage/> (last accessed February 9, 2011).

¹⁶⁸ For example, the Rights Statement of the Smithsonian Institution is made available at <http://www.si.edu/termsfuse> (last accessed February 9, 2011).

¹⁶⁹ According to a report in the YahooCorp blog, Yodel Anecdotal, posted on November 12, 2009, to announce a partnership between Flickr and the photo-printing service Snapfish, available at <http://ycorpblog.com/2009/11/12/flickrsnapfish/> (last accessed 8 Feb. 2011).

¹⁷⁰ See <http://blog.flickr.net/en/2010/09/19/5000000000/> (last accessed February 8, 2011).

¹⁷¹ *Jamendo* is a public limited company headquartered in Luxembourg and is funded by voluntary donations from both the public and private entities.

German, Italian, Polish, Portuguese, Spanish and Russian, offers a catalogue of over 294,000 tracks and over 42,000 albums.¹⁷²

As far as artists are concerned, *Jamendo* offers a way to promote, publish, and get paid for the music created (the latter in particular as an effect of licensing agreements related to the commercial utilization of music otherwise freely available only for non-commercial purposes). *Jamendo* allows artists to keep 50% of the revenue generated.¹⁷³ Artists can register for a free account then go to the upload page and add their tracks. Once a track has been uploaded, artists can enter other information such as title, author, genre, and album art. Then artists simply chose a license (e.g. a *Creative Commons* license) and the file becomes tagged with metadata outlining the copyright conditions. Upon the approval of *Jamendo*'s moderation team, the track becomes available to listeners.

In turn, listeners can search for music, discover new artists, review and comment on albums, generate playlists, join forums to discuss music, and easily network with the music community. The search function allows listeners to explore their creative side by finding content which can be modified, adapted or built upon, or even available for commercial purposes. Additionally, the use of *Creative Commons* licenses clearly identifies to the listener the terms of use associated with the music.

By providing an organized platform for artists to share, but at the same time manage some rights on their works, *Jamendo* tries to satisfy the potential demand created by the combination of the growing sharing ethos of several online communities and the problem of illegal music downloads. Artists can use the tools offered by *Jamendo* to take advantage of the Internet and reach the largest audience possible. Additionally, listeners have a website they can go to where they do not have to worry about whether they are downloading illegally.

Google Books (<http://books.google.com/>)

Google Books is a service from *Google* that allows users to search for publications that were scanned under agreements with university libraries within the *Google Books Library Project*, or provided by the copyright holders through the *Partner Program*¹⁷⁴. The aim of the service is simply to “find the perfect

172 See <http://www.jamendo.com/en/> (last accessed on June 13, 2011).

173 See <http://www.jamendo.com/en/faq#artist> (last accessed on June 13, 2011).

174 On the one hand, the *Partner Program* serves to provide a “free marketing programme that enables publishers and authors to promote their books online.” Once the right holders register for a free account, they can then submit their works and designate how the works can be viewed online. On the other hand, the *Library Project* aims to provide Internet users with “an enhanced card catalog of the world's books”. The books in this program are digitized under agreements with university libraries, without first seeking for copyright holders' authorizations.

book for your purposes and discover new ones that interest you.”¹⁷⁵

After digitization through both the programs, the books will then become indexed into *Google Books* databases for the public to access and view. The four different viewing options available are¹⁷⁶:

1. **No Preview Available:** This is the most limited viewing option used for the books whose right-holders can be damaged from the snippet view (*infra*), such as the dictionaries, and for the ones whose copyright holders asked to be excluded from the Library Project. Like a card catalogue, the public can only see basic information, such as the author, title, publication date and place.
2. **Snippet View:** This view applies to the books scanned through the Library Program and it allows the public to see keywords as designated by their search term including some limited sentences, and also the basic information provided in the *No Preview Available* option above. If a searched word appears many times in the book, no more than three snippets are shown.
3. **Limited Preview:** This view allows the public to preview a limited number of pages and excerpts from the book. For this option, the copyright holder must give explicit authorization.
4. **Full View:** This is the most unrestricted viewing option which allows the public to see any and all pages of the book. This option is used for books in the public domain or if the copyright holder has specifically authorized the book to be fully viewable. In addition, these books usually have the option to be downloaded in a PDF format.

According to *Google*, there are over 129,865,000 books around the world, of which 15 million books from more than 100 countries in over 400 languages¹⁷⁷ have been scanned to date as part of the *Google Books Project*.

Because of the Library Project, in 2005, Google has been sued by the Authors Guild and the Association of American Publishers for copying and saving full-text of copyright-protected books into the Google Book database. However, in 2006, Google and the complainants decided to settle and in 2008 a first Settlement Agreement has been filed with the United States District Court of the Southern District of New York¹⁷⁸. After the submission of hundreds of third-party objections, a modified

¹⁷⁵ See <http://books.google.com/googlebooks/about.html> (last accessed on June 14, 2011).

¹⁷⁶ See <http://www.google.com/googlebooks/screenshots.html> (last accessed on June 23, 2011).

¹⁷⁷ See <http://booksearch.blogspot.com/search/label/announcements> (last accessed on June 14, 2011).

¹⁷⁸ The terms of the Settlement essentially help define the categories of books accessed through Google Books by:

▲ In-Copyright and In-Print Books: For in-print books which are still actively offered for sale, the copyright holder can designate the preview and purchase options to allow their titles to be more easily available through a book search.

▲ In-Copyright but Out-of-Print Books: For out-of-print books that are not actively being published or sold,

Settlement has been filed in 2009. On March 22, 2011 the judge denied the parties' request for final settlement approval, however he left the door open for the renegotiation of the agreement. It is difficult to predict whether a new Settlement will be presented to the Court or not: a status conference was scheduled for July 19, 2011.¹⁷⁹

Google Book Rights Registry

The *Book Rights Registry* is a project in-progress linked to the sort of the Google Book Settlement agreement, which after the Court's rejection (see *supra*) is now uncertain. However, it should be noted that, if a new revised Settlement would be submitted to the Court, probably the Book Rights Registry functioning won't be significantly changed because it wasn't highlighted as a matter of concern by the judge.

Accordingly to the terms of the refused Settlement, the *Book Rights Registry* would act as both a collecting society and as an intermediary to represent the interest of copyright holders in connection with *Google Books* (and any other similar programs). In particular, the *Book Rights Registry* would manage the rights and information of copyright holders, including but not limited to, using reasonable means to locate and determine ownership of copyrights, collecting and distributing payments to copyright holders, manage licensing to third-parties with the authorization of copyright holders, and maintaining a database with contact information on copyright holders.

To receive compensation and control third-party use of their books, copyright holders can register for a free account by filling out a claim form. In order to identify the books sufficient information must be provided, like contact information, social security number or equivalent, and a declaration stating whether the registrant is the author, publisher or another type of copyright holder of the book. Non-copyright holders will be able to use the *Book Rights Registry* for various functions, including negotiating licenses with copyright holders, checking the *Book Rights Registry's* database for information about registrations and the identity of the copyright holder, and also running search

these books will be available online for preview and purchase, unless the copyright holder chooses to "turn off" that title.



Out-of-Copyright Books: For out-of-copyright books, the public can read, download and print these titles.

The settlement also envisages the establishment of a Not-for-Profit Books Right Registry (see *infra*) that will act as both a collecting society and an intermediary to represent the interest of copyright holders in connection with Google Books.

These changes only apply in the United States. For international users, the book search will function as it does now.

¹⁷⁹ The publishers and the authors have expressed their willingness to do renegotiate the Settlement, meanwhile Google has not indicated such willingness yet. The judge asked for a revision of the Settlement terms regarding the classes representativeness, the scope of the relief to be granted, the opt out model that is contrary to the copyright's rules and the inclusion of foreign books in the transaction. In addition, he expressed his concerns in relation to the orphan works' problem, which should be regulate by the Congress, and to the privacy and competition matters.

queries to determine whether a book has been registered. The *Book Rights Registry's* database will also contain all titles presumed to be in the public domain.

The *Book Rights Registry* aims at reducing the transaction costs of negotiations between copyright holders and third-parties who want to use their books. Additionally, the combination of the *Book Rights Registry's* aid to locate copyright holders and the economic incentive for copyright holders to self-identify their books have the potential to reduce the number of books whose copyright status is unknown.

The *Book Rights Registry* would operate as a not-for-profit, independent organization, founded through the *Google Books* settlement agreement, if approved in the future. The *Book Rights Registry* would be managed by a board of directors with one publisher and one author sub-class from each of the countries: the United States, Canada, the United Kingdom, and Australia.¹⁸⁰

Meta-Documentation Projects

Creative Commons (<http://www.creativecommons.org>)

Creative Commons, a non-profit organization¹⁸¹, provides the public with a free set of copyright licenses and tools via the Internet. The six licenses, developed and released by *Creative Commons*, allow users to reserve some rights while licensing other rights to the public. These innovative licenses have paved the way for users to obtain flexibility from the traditional All Rights Reserved approach. Users can select one of the *Creative Commons'* licenses by answering a few simple questions about the conditions they wish to impose on their work. Upon submission of this information, a HTML code (which can be inserted in a website to display a simple and understandable license button) and a specific statement (which can be added to offline works) are automatically generated for the user to easily apply to their works. Both the HTML code and the generated statement puts the public on notice as to what type of rights are associated with the work based on the *Creative Commons* license chosen. An appropriate URI is also included in the code snippet and generated statement in order to allow others to read a summary of the chosen license or its full text.

An important tool provided by *Creative Commons* includes an area devoted to offer convenient information and access to search services provided by independent organizations. These search engines provide results of works which are using *Creative Commons* licenses. Once a work is found

¹⁸⁰ The board of directors will also be allowed to represent the interests of either all authors or all publishers as a subgroup, but it is prohibited from representing any further particularized subgroups regarding any matters.

¹⁸¹ *Creative Commons* is managed by a board of directors, a technical advisory board, and an audit committee.

and the *Creative Commons* license is identified, the user can determine what rights (if any or all) the copyright holder has chosen to retain. The search engines offer a convenient and quick way to search for works. For instance, users can limit *Google's* search engine to filter by specific licenses, such as:

- ▲ free to use or share;
- ▲ free to use or share, even commercially;
- ▲ free to use, share or modify;
- ▲ free to use, share or modify, even commercially.

Creative Commons is not just a copyright documentation system but also a solution for users to communicate to the public, in an easy-to-understand format, information about the rights reserved in their works. This allows others to copy, distribute, and make use of copyrighted works without the high transaction costs or confusion which could be associated to diverse and ad hoc copyright licenses. *Creative Commons* essentially promotes licensing standards and protocols to understand copyrights for works (and digital works in particular) around the world. *Creative Commons* is being used with many private copyright registries to balance the ever-changing needs of today's online creators with the traditional rules of copyrights.

With the support and network of over 100 affiliates from over 70 jurisdictions around the world, *Creative Commons* licenses have been attached to more than 185 millions¹⁸² of artistic, scientific, and educational works.¹⁸³

PLUS (<http://www.useplus.com/>)

Picture Licensing Universal System (PLUS) is a three-part system developed to clearly define licensing language and provide a foundation for building and managing license data with the aim to "simplify and facilitate the communication and management of image rights."¹⁸⁴

PLUS is based on three components: the *PLUS Picture Licensing Glossary*, the *Media Matrix* and the

¹⁸² *Creative Commons'* decentralized approach does not allow for a direct and precise monitoring of the number of licensed works. However, the *CC Monitor Project* (<http://monitor.creativecommons.org/>) used the results of search engines to estimates that almost 186 millions of digital objects were licensed under CC license on May 5, 2010. This number is likely underestimated, since it does not consider that a large amount of licensed items which are not fully indexed (for instance, on June 14, 2011, Flickr.com alone hosted more than 188 millions of CC licensed photographs).

¹⁸³ *Creative Commons* is used by organizations and companies such as *Wikipedia*, *Flickr*, *Google*, and *Al Jazeera*.

¹⁸⁴ *PLUS* is the creation of the *PLUS Coalition*, a group of experts from different areas of the picture business such as advertising agencies, application developers, artist representatives, design firms, illustrators, legal experts, photographers, publishers, researchers, stock agencies and others who wanted to improve the system of licensing images.

License Format. The first of these components, *PLUS Picture Licensing Glossary*, serves to provide a common understating of the language used in picture licensing and consists of over 1000 terms, definitions and uses agreed upon by industry professionals worldwide. The *PLUS Picture Licensing Glossary* is expanded and updated regularly and is accessible through the *PLUS* website. The second component, *Media Matrix*, provides uniformly specific international media categories (organized by type) and universal billing codes which were co-developed and approved by image providers and users alike.¹⁸⁵ The last component, *License Format*, is the result of a merge between the previous two components and consists of a machine-readable data format available to embed as metadata in image headers and as invisible watermarks on printed images.

By providing industry standards and machine-readable license data, *PLUS* seeks to improve the right management of images by making it easier to track image licenses and allowing improved monitoring and policing of image distribution and use. Additionally, the use of the *PLUS* system aims at eliminating disagreements regarding the scope of a license. In the event of a dispute, *PLUS* can provide the definition of each media type and term used in a license. In other words, *PLUS* aspires to become for image licensing what *Incoterms* are to the international trade of goods. Moreover, since the loss or lack of identification information stored in digital image files can often result in the loss of the ability to make use of such content, the use of this type of technology can contribute to the long-term preservation and use for digital content.

The service is currently only available in English¹⁸⁶ but has already been included in many (multilingual) products of the software company *Adobe Systems*, including *Adobe Lightroom*, *CreativeSuite*, *Photoshop*, *Illustrator*, *InDesign*, and *Acrobat Reader*. Additionally, the British Library has also adopted the system into its global licensing platform.

¹⁸⁵ For instance, 2BOB indicates “Media Matrix: Advertising | Periodicals | Magazine (Consumer Magazine)” and 9ENE means “Exclusivity: Non-Exclusive.”

¹⁸⁶ There are plans to eventually translate the standards into 21 languages.