The role of copyright in the protection of the environment and the fight against climate change: is the current copyright system adequate?

Estelle Derclaye, University of Nottingham
Ch. 19 The role of copyright in the protection of the environment and the fight against climate change: is the current copyright system adequate?

Dr Estelle Derclaye

Introduction

At first sight it may not seem like copyright plays a role in the fight against climate change or the protection of the environment in general. But in many ways, it does, and it does so (perhaps surprisingly) with quite some importance. Indeed copyright works can be extremely varied. Literary and artistic works of various kinds as well as audiovisual works and films are subject to copyright. In the environmental field, they can range from eco-friendly architectural plans and buildings, literature, charts, diagrams, maps, photographs, to films about the weather, climate, and the size of glaciers, to software and databases used for forecasting or analysis of weather, climate, temperature patterns, changes in fauna and flora, and drought control. These copyrightable works are created either by private entities or by the state, in the latter case either exclusively or in competition with private entities. The question is posed whether the normal copyright regime (namely full exclusivity) should be retained for copyright works containing information or original expressions on the environment, more specifically the climate, because of the importance these works have in helping to save our planet and therefore ourselves. Does the current copyright system work well already or do we need to modify it to take account of environmental concerns?
To answer this question, this chapter scrutinises the various aspects of copyright law: subject-matter, protection requirements, authorship and ownership issues, duration, economic and moral rights, and defences. It also examines the database *sui generis* right (which is a right protecting the investment in the collection, presentation and/or verification of the contents of a database that so far exists only in the European Union),¹ and para-copyright (namely the protection of technological protection measures by anti-circumvention provisions). The discussion of the several aspects of copyright law brings to light the questions of access, dissemination, interoperability and pricing which are especially crucial to environmental issues. The chapter discusses these aspects from a European perspective but it will also make some comparisons with US law.

**Subject-matter and protection requirements**

Subject-matter protection, in general, is not harmonised at the European Union (EU) level, or at least was not meant to be. Specifically, article 2 of the Infosoc Directive² does not harmonise subject-matter protection. The only subject-matter which was harmonised were databases (definition given) and software (no definition given), and to a lesser extent photographs (no definition given).³ Recent decisions of the Court of Justice of the European Union (hereafter the Court of Justice) seem to suggest that ‘anything under the sun’ can be protected by copyright, provided it is the author's own intellectual creation.⁴ All the works cited above in the introduction are protected in all Member States. This includes the United Kingdom (UK) and Ireland, which have a categorisation system, as all these works fall within the categories. Therefore, provided that the originality requirement is fulfilled (that is, the work is the author's own intellectual creation – the criterion for which will be further elucidated by the Court of
Justice\textsuperscript{5}, all works are protected (except for certain government works, as discussed below). In the UK and Ireland, works (except artistic works) must also be recorded in a material form in order to be protected by copyright, but the above mentioned works will invariably be recorded unless the literary work in question is merely oral – for example, an impromptu speech at a conference on an environmental topic.

There is one important category of works which is excluded from protection in most European countries: official texts. Even if they are original, many national laws exclude official texts from protection, following the option provided in article 2(4) of the Berne Convention: ‘It shall be a matter for legislation in the countries of the Union to determine the protection to be granted to official texts of a legislative, administrative and legal nature, and to official translations of such texts.’\textsuperscript{6} Therefore official literary works relating to the environment are totally free for re-use. This is good news in terms of the considerable official efforts needed to protect the environment and more specifically to tackle climate change. These official works remain totally unprotected, and everyone can use them without having to ask permission or to pay any royalties to inform, to make other works, and more importantly to solve environmental problems.

However not all such official works are excluded from protection. Often it is only\emph{texts of a legislative, administrative or legal nature} which are excluded, as the Berne convention itself authorizes. The exclusion therefore does not apply to works other than literary ones and other than of a legislative, administrative or legal nature; for instance government reports and documents prepared by government departments.\textsuperscript{7} The Belgian and Dutch laws provide good examples.

Article 8(2) of the Belgian copyright act provides that official acts of the authority are not protected by copyright. The notion of ‘official act’ does not equate with that of ‘public document.’ Therefore there are many public documents which can
benefit from copyright and which are not official acts. It has been submitted that ‘official act’ in the copyright act means acts, regulations, executive measures, parliament works, judgments and indictments of the Crown Prosecution Service. Furthermore this exclusion was not added either in the database act or in the software copyright act, which are separate statutes in Belgium. Therefore any official act which either is a protected database (protected either by copyright or the sui generis right) or is a computer program is protected by copyright and/or the database right. One can imagine a lot of these official acts that concern the environment. For example, meteorological databases and the software that may have been conceived especially to run those databases.

In the Netherlands, article 11 of the copyright act provides that no copyright subsists in laws, orders and resolutions promulgated by the public authorities, legal decisions or administrative decisions. Article 15(b) further states that reproducing or making available works that were made available by or through the public authorities is not considered to be an infringement of copyright, unless the copyright is explicitly reserved. The Netherlands felt that it was desirable to introduce equivalent provisions to articles 11 and 15(b) of the Dutch copyright act for the database sui generis right. Article 8 of the Dutch database act reads:

1. The public authority shall not have the right referred to in Article 2, paragraph 1 [i.e. copyright], with respect to databases of which it is the producer and for which the contents are formed by laws, orders and resolutions promulgated by it, legal decisions and administrative decisions.
2. The right, referred to in Article 2, paragraph 1, shall not apply to databases of which the public authority is the producer, unless the right is expressly reserved either in general by law, order or resolution or in a particular case as evidenced by a notification in the database itself or when the database is made available to the public.\textsuperscript{12}

Other countries have not taken advantage of the option provided in the Berne convention and thus provide copyright protection for all official works. The UK, for instance, fully protects Crown and Parliamentary copyright.\textsuperscript{13} Judges also retain copyright on their judgments. There is controversy as to who owns the copyright in judicial decisions (judges or the Crown), but there is no controversy that copyright subsists in them. Nevertheless there are a number of generous defences to infringement, which make it very easy to re-use official documents.\textsuperscript{14}

In the US, section 105 of the copyright act excludes from protection ‘any work of the US government.’ This applies only to works made in the course of government employees’ duties. Despite the use of the term ‘government’, the exclusion applies to federal legislation, to federal decisions\textsuperscript{15} and to state materials (according to a long standing practice).\textsuperscript{16}

Returning to originality, the Court of Justice has now clearly set the standard for identifying copyrighted works for all Member States. In Infopaq, a case concerning literary works (news articles), it held that the author’s own intellectual creation meant creativity.\textsuperscript{17} The Court did not set the level of required creativity, but it seems low as the Court agreed that it could subsist in as little as 11 words. What Infopaq and its progeny\textsuperscript{18} has already made clear is that a number of sub-creative works, which were previously protected in the UK, will now remain unprotected.\textsuperscript{19} Drawings, maps,
charts, diagrams and literary works that only involved sweat of the brow, or mere labour, can therefore be re-used without permission.

In the US, since the 1991 Supreme Court *Feist* case, creativity has also been the criterion for originality. The Supreme Court in that case set the level rather low (a modicum of creativity). Therefore the two legal systems appear to closely correspond.

The idea/expression dichotomy (where protection is not available for the underlying ideas, but only for the creative expressions of them) will generally work well for copyright protected ‘environmental works’ (that is, those copyrighted works and databases that relate, discuss, analyse, map, etc. the earth’s environment, including the climate.) Nevertheless, copyright protection will often create a problem for photographs, notwithstanding the idea/expression dichotomy. There may be only one photograph generated by only one photographer available of some climatic, geographic or more general environmental data (for instance, because it was a sudden event or it was difficult to access the location). The fact that the information embedded in it merges with the expression of the creativity of the photographer (assuming it is not a mere snapshot) will in effect supply a monopoly on the information itself. In the vast majority of cases, the whole photograph will need to be used and thus the permission of the right holder will be needed.

The recent *Softwarova* case seems to provide an answer to this merger problem, as it adopts the US’s merger doctrine (which holds that copyright does not exist when there are only a handful ways of expressing an idea). Indeed, the Court of Justice has confused (even merged) the two criteria of protection (originality and the idea/expression dichotomy) when it said: ‘where the expression of those components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the
expression become indissociable." It thus may be argued that some photographs could be re-used as an application of the merger doctrine. The legal situation in the EU therefore appears to correspond to that of the US.\textsuperscript{24}

The EU merger rule neatly resolves the problem of restriction of unique works, as photographs of geographical, geological, environmental and climatic changes are important not only for evidentiary but also for analytical purposes, and need to be easily, quickly and cheaply available to solve environmental problems. Note that exceptions to exclusive rights, especially in Europe, may not always allow quick and easy use of photographs for environmental purposes because of the often numerous and strict conditions the user has to comply with (one of them is often that only part of the work may be used which for photographs renders the exception often useless). The US fair use doctrine is, in this respect, more flexible. The issue of exceptions will be examined in detail below.

\textit{Authorship, ownership and dealings}

The issue here is not really the rules regarding initial ownership, nor those governing employee and commissioned works. It is the rules relating to the type of author (public or private) and the licensing practices of those entities which may not be fully adequate to assure the necessary widespread or innovative uses.

As already noted above, the rules regarding documents created by the state are somewhat different from those created by private individuals or companies. Official texts do not benefit from copyright protection in many European countries. One of the main reasons is that the public necessarily needs to be informed as to the rules that apply to it. Another is that the public has already paid for the works through their taxes.
As to other official protected works, some copyright laws also generously include exceptions to allow re-use of these works without permission, or for a nominal price. Other laws, namely freedom of information acts, restrict the application of copyright to most official works. As such laws really fall within the issue of exceptions, they will be discussed below under that heading. Only the issue of restrictions on licensing, particular for interoperability, will be discussed here.

As to works created by private individuals or companies, the normal regime of full exclusivity normally applies. The consequences of such full exclusivity depend on the rights conveyed. The issue of adequate licensing, however, also occurs for public owners, although the legal regime is different. Assignments will be rarer in the case of state works than of individual or private company works.

The first aspect of licensing is legal openness and interoperability. For state works and databases, public sector information (PSI) is subject to a special regime in the EU, owing to the adoption of a Directive on the re-use of public sector information. This Directive’s aim is to facilitate the re-use of documents held by public sector bodies of the Member States. ‘Public sector body’ means the State, including regional and local authorities, and bodies governed by public law. The latter are then further defined and include, among others, bodies financed for the most part by the State. (Note that some funded entities are excluded, such as universities, theatres and libraries.) A document is defined as ‘(a) any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording); [and] (b) any part of such content’ (art. 2.3.). However, computer programs are excluded from the Directive’s scope (recital 9). The Directive sets out only a moral (hortatory) duty for Member States to allow for re-use of their PSI (art. 3). Technically,
therefore, no country is legally obligated to facilitate this re-use, but is only encouraged to do so. This is the major downside of the Directive.

When Member States decide to allow re-use, article 8 of the Directive prescribes that:

1. Public sector bodies may allow for re-use of documents without conditions or may impose conditions, where appropriate through a licence, addressing relevant issues. These conditions shall not unnecessarily restrict possibilities for re-use and shall not be used to restrict competition.
2. In Member States where licences are used, Member States shall ensure that standard licences for the re-use of public sector documents, which can be adapted to meet particular licence applications, are available in digital format and can be processed electronically. Member States shall encourage all public sector bodies to use the standard licences.

The Directive thus makes an effort to promote legal openness and interoperability as much as possible. These aspects are very important, especially for dynamic content, which often is the case for environmental information (for example meteorological data). If the data is not readily re-usable, delays in access will often affect by-product works and further innovations based on or using the information.\(^\text{26}\)

In countries where official texts are not protected by copyright, the issue of the need for access through licences does not even arise. Legal openness and interoperability will be optimal. This state (no copyright) is the ‘ideal starting point.’\(^\text{27}\) Indeed, as there are no terms for their re-use, the copyright works can be re-used in an infinite variety of ways with ‘no strings attached.’\(^\text{28}\) (This state, of no copyright protection, is the case for the vast majority of PSI in the US.\(^\text{29}\))

In the EU, for official documents that are not official texts (and for artistic and audiovisual content), states may make re-use possible through legislation or other measures that ensure that public licences exist are standardized. The best standard licence allows for any re-use whatsoever, or preferably may dedicate the copyrighted work to the public domain. An example is the Creative Commons Zero licence (CC0).
Another is the Creative Commons Attribution licence (CCBy), which only requires attribution as a condition. The Creative Commons Non Commercial Use licence (CC NC) could also be used when the state does not want the data to be re-used without payment if the entity re-using it is for profit and the Share Alike license when the state does not want the data to be transformed.

Creative Commons licences can be used internationally and are therefore very favourable to interoperability as their terms are the same in any jurisdiction. However the last three forms of license (CCBy, CCNC, and Share Alike) can create problems for interoperability; they add restrictions that impede the merging of copyrighted content as more licensing conditions have to be respected in the combined expression. (CCBy licences are not problematic, as only a statement attributing the works to the state has to be made; merging copyright works from different sources does not present a problem if attribution is supplied to the combined work.) In the case of Share Alike licences, merging may be impossible unless the two or more sets of copyright works are all subject to Share Alike licences. But even then, it may not be possible as Share Alike licenses may be interpreted to mean that the works must be used in isolation as the same terms must be used for derivative works.

In conclusion, if the two original copyright works carry different licences, it may not be possible to merge them if their original licence terms conflict, as those terms will need to be respected down the chain of derivation and re-use.

In summary, the PSI Directive is a first step in the right direction towards assuring re-use and interoperability, but it must be revised to make it compulsory for Member States and to allow them to completely free their copyright-protected PSI. The Berne Convention and the World Trade Organization’s Agreement on Trade Related Aspects of Intellectual Property (TRIPs Agreement), however, may create an
obstacle to achieving this goal, as under those agreements protection cannot be denied to works other than official texts. Hence, new international standards should be created to favour optimal, interoperable, PSI re-use\textsuperscript{15} and should be imposed on Member States. In the field of environmental data and works, this is of great urgency. These works and data need to be re-used (commercially or otherwise) in combination with other works and data in order to find quick solutions to environmental problems including climate change.

The situation is different for environmental works created by private entities. Such entities are not like the state, which is paid directly by the taxpayer and does not therefore take the same financial risks when creating environmental data and works. Private entities, whether individuals or companies, may only rarely decide to create these works if they cannot recoup their investment. The basic economic copyright rationale applies to such entities: private entities need to have the possibility of recoupment provided by granting exclusive property rights. (Charities such as Greenpeace are of course a special case. They are funded by the public and are non-profit entities, so their situation is closer to that of the state in many respects. Probably such charities should receive similar treatment to states, preventing ownership and/or requiring widespread re-use and interoperability.) For private entities needing recoupment for environmental works, if copyright is not available none or very few such works would be created. Free re-use of environmental works is therefore not a realistic option.

Compulsory licences, and legislation establishing the circumstances in which they can be imposed, also should be carefully evaluated so as not to deter the creation of environmental works of private entities. Specification of the cases in which compulsory licences can be imposed is not adequate in the field of copyright, at least at international
level. Relatively uncontroversial grounds for compulsory licences that exist for patents, for example failure to work (compare refusals to licence the copyright work for re-use) and that may be granted in cases of emergency (for example fighting climate change), should also be available under certain conditions (including fair compensation) for copyright works. (Further discussion of the additional grounds on which compulsory licenses may be granted is provided in the Chapter by Carlos Correa.) Compulsory licenses also should be granted only if the copyright holder is in a dominant position, as otherwise the market should function adequately\textsuperscript{36} and should force copyright holders to licence their works at competitive prices. (Further discussion of competition concerns is provided in the Chapter by Michael Carrier.)

Competition law already may curb such abuses, but is a far less effective and more uncertain remedy than express statutory compulsory licensing provisions, as competition law is dependent on litigation (providing an ex post rather than an ex ante remedy) and judicial practices (and the case law is variable). It is therefore better to integrate compulsory licences into statutory copyright laws. Such mechanisms which exist in certain countries should ideally be added to the TRIPs agreement in future. The UK’s Copyright Act provides that compulsory licences can be imposed by the Competition Commission in certain cases, mainly when the copyright owner refuses to grant a licence on reasonable terms and when the licence restricts the use of the work by the licensee or the right of the owner to grant other licences.\textsuperscript{37}

Another important aspect of licensing is pricing. Again, one should distinguish between pricing of ‘public’ and ‘private’ copyright works. As to private undertakings, excessive pricing is frowned upon by European competition law. Ideally, excessive pricing should also be frowned upon by copyright laws, but in the end there will always
be a need for an arbiter or judge to decide whether the price a copyright holder sets is excessive.

The PSI Directive seeks to regulate the issue of pricing and the nature of licensing by the state. Article 6 encourages pricing that is not excessive, specifically:

Where charges are made, the total income from supplying and allowing re-use of documents shall not exceed the cost of collection, production, reproduction and dissemination, together with a reasonable return on investment. Charges should be cost-oriented over the appropriate accounting period and calculated in line with the accounting principles applicable to the public sector bodies involved.  

Article 11 ensures that licences are not exclusive, except in very exceptional cases. Article 10 prevents the state from unfairly competing with private entities when it uses its PSI for commercial ends. Pricing is therefore well regulated, particular as non-exclusive licensing should assure competitive markets. The Directive thus should enable the availability of all sorts of PSI, including environmental works at a fair price, when a price is charged for such information. Ideally, the vast majority of state works should be dedicated to the public domain so that the pricing issue does not even arise.

**Duration**

The normal term of protection applies to environmental works. The general rule is 70 years after the death of the author, both in the EU and in the US. The term of protection is highly contested nowadays for being too long. While the optimal term of protection is important to the issue addressed in this paper, minimal terms are regulated by the Berne Convention and TRIPS Agreement and typically all works are subject to the same duration; the issue thus is not discussed further here, even if the existing duration is excessive.
Copyright gives its owner full exclusivity; specifically the right to refuse to licence the work. This property right is subject to competition law when the copyright owner is dominant and such refusal is abusive. As discussed above, competition law and compulsory licences attenuate the potentially bad effects of such a full-blown property right.

It is questionable whether further restrictions to full exclusivity need to be introduced for environmental works (particularly in jurisdictions having extensive fair use provisions). The current framework, with the exceptions and tweaks discussed above, functions well. However this is so only in respect of economic rights, that is, broadly, in regard to reproduction and communication to the public of environmental works. More tweaks may be needed with regard to moral rights, mainly the rights of attribution and integrity.

Moral rights are not harmonised in the EU. Some countries, like the UK, have very limited moral rights. For example, works made by employees in the UK, for instance, are virtually free of moral rights.\(^{46}\) (There are many other cases where moral rights are curtailed in the UK.\(^ {47}\)) Therefore moral rights in the UK create no impediments to the re-use of environmental works created by employees. In some other European countries such as France, however, moral rights are quasi sacrosanct and can present a hurdle in the exploitation of environmental works. Databases protected by the *sui generis* right do not attract moral rights, so this problem will not arise for databases that do not also attract copyright protection (that is, databases arranged in a banal way such as many databases on weather patterns, climate, temperature and so on).
For other environmental works, such as reports, graphs, maps, audiovisual works, the moral right of attribution may not pose a great problem. After all, it is only fair that authors should be attributed when their works are re-used.

In contrast, the right of integrity will prove a stronger obstacle. Many French courts adopt a subjective test to determine if the author’s integrity right has been violated. Thus if the author feels aggrieved, s/he can block the further exploitation of the work. Such a scenario probably will not happen if the author is an individual who has granted a licence on the work that allows adaptation. Blocking also could happen if the author is an employee, as moral rights are inalienable. Employers and contracting parties are therefore well advised to include moral rights waivers in contracts to avoid the blocking of the re-use of environmental works. Waivers are not entirely fool-proof though. In many countries, strict rules must be respected as otherwise the waiver is invalid.

Making the moral rights rules more flexible for environmental works would therefore be in order in those Member States which protect them tooth and nail. This is because of the compelling importance of such works for the planet’s and its inhabitants’ wellbeing. In other words the moral rights of the author weigh far less in the balance in this very case. For instance, the moral right of integrity could only prevail in case of gross or manifest disregard.

In the US, moral rights are rarely impediments to the re-use of environmental works as they are only granted to visual artists. Section 101 defines visual art as only comprising paintings, drawings, prints, sculptures or photographs in one single copy or no more than 200 numbered copies and which are not works made for hire. The moral rights of visual artists are quite protective of authors; as the right of integrity prevents destruction of works of recognised stature, save in exceptional cases. Therefore a
similar rule (gross or manifest disregard for the author’s work, reputation or honour) could be applied. Nevertheless, the rule against destruction of works of recognised stature surely applies to works existing in single copies. Environmental works will rarely exist in single copies, as they are more likely artistic works which can be reproduced such as maps, drawings, photographs, charts, and so on.

Finally, as already discussed in previous scholarship, the principle of exhaustion (the first-sale doctrine in the US) applies to the author’s right of distribution, enables recycling, and therefore promotes environmental protection.\(^\text{49}\) This principle, which applies to all intellectual property rights, provides that the right of distribution of the IPR holder is exhausted once he or she first puts his or her product protected by the intellectual property right on the market or when it is put on the market with his or her consent.\(^\text{50}\)

**Defences**

Apart from compulsory licences discussed above, EU law does not provide specific defences to enable freer re-use of environmental works. There are no specific exceptions for such use of copyrighted works in the Infosoc Directive or any other Directive. (One would need to do a thorough review of the copyright exceptions at the national level – 27 Member States – to see if there was such exception; indeed the InfoSoc Directive allows Member States to retain minor exceptions existing before the adoption of the Directive.\(^\text{51}\)) However, an exception that could be used indirectly is article 5(3)(e) of the InfoSoc Directive, which allows reproduction and communication to the public for purposes of public security. A similar exception exists for databases (art. 6 and 9 Database Directive). The decompilation exception in the Software
Directive (art. 6) also helps to achieve interoperability. The exception allows the decompilation of computer programs that are necessary to solve environmental problems, but only for interoperability purposes and thus not to create competing programs. The exception may therefore be a little too narrow in view of the higher environmental interest of climate change.

US copyright law is generally more flexible as the defence of fair use (section 107 of the US copyright act) could well apply in many cases concerning environmental works especially because the first two factors (purpose and character of the use and nature of the work may weigh more heavily in the balance in this case). The other two factors are: proportional amount; and substance of the use and effect on the original author’s economic market.

It may thus be of interest for the EU to think about either introducing a specifically tailored exception to allow re-use of environmental works under certain conditions or go further and adopt a fair use defence similar or identical to that of the US. (It may be argued that a broader exception for works of ‘vital importance’ is better suited as making such a specific exception may be too particular. Other works may deserve such special treatment too and not only ‘environmental works.’) The literature has recently made proposals in this direction.52 Otherwise, compulsory licences may also play this role.

Finally, it must be noted that those countries which do not exclude ‘public works’ from protection can adopt generous statutory exceptions to copyright to palliate to the full exclusivity regime. The UK is such a country.53

*Technological protection measures and anti-circumvention provisions*
A final issue of concern is so-called “para-copyright” provisions. Technological protection measures (TPMs) and anti-circumvention legal provisions relating to TPMs (ACPs) can restrict both access to and re-use of environmental works. In the EU, since there is no specific exception allowing re-use of environmental works, the full-blown regime protecting ACPs applies to PSI (art. 6 of the Infosoc Directive). It is illegal to knowingly circumvent a TPM to access and re-use a copyrighted (environmental) work to breach any exclusive right granted to the copyright or database right owner (art. 6(1)). It is also illegal to make, sell, distribute, and promote a product or services which enable circumvention of TPMs (art. 6(2)). If, however, the exception of article 5(3)(e) is applicable to an environmental work, then Member States must safeguard this exception (art. 6(4)) so that users can access and re-use environmental works despite the TPM protecting them. However the TPM protection is absolute if any work is accessible online via a contract (art. 6(4) in fine); a much criticised aspect of the Directive.

The US has in many respects an even stricter regime for the protection of TPMs in the Digital Millennium Copyright Act (DMCA). There is however a mechanism which allows the review of the exceptions to the protection every couple of years, and it is specifically designed to address users’ concerns regarding access to and re-use of copyright works. A number of exceptions have now been added following such reviews. So far no exception has been added in relation to environmental works, as TPM protection under the DMCA apparently has not generated any significant problems of access or re-use in this respect. It will be interesting to see if, following future reviews, such exceptions are added.

Finally, copyright holders may be tempted to override the principle of exhaustion by way of TPMs, but this is arguably against EU law (under art. 34-36 of the Treaty on the Functioning of the European Union, addressing the free movement of
goods). In some countries, inalienability clauses have been held void because they are against the very definition of property and the Civil Code, which favours the free circulation of goods (as in Belgium and arguably also in France). \(^{56}\) Contracts and TPMs that prevent recycling of copyright works should be void, at least in the EU. \(^{57}\) Even if they were not, they may be in conflict with some EU environmental laws that require recycling, at least in certain technological sectors (for example vehicles, packaging, electronic equipment). \(^{58}\) The question of contract pre-emption is not settled in the US. \(^{59}\)

The issue of remedies is also important. It may be that injunctions are not indicated in some cases involving environmental works and that the award of only damages is a better option. This is an issue beyond the present scope, but one which would be worth exploring further.

**Conclusion**

Broadly speaking the copyright system already caters to environment works rather well. Efforts have recently been made to ‘free’ PSI in the EU, and a review of the Directive \(^{60}\) will hopefully bring further welcome changes along the lines proposed in this paper and elsewhere. However more could be done to enable wider access and re-utilisation of environmental works. Achieving better interoperability is one major task. Restricting the moral right of integrity in countries where it is highly protective of authors is another task. Adding carefully crafted compulsory licences to copyright laws is yet another task. Competition law is also a good complement to copyright law to combat collusion, refusals to licence, and excessive pricing. Freedom of information laws and environmental laws will also sometimes affect copyright (for example, architects may
be forced to adapt their copyright plans to ensure their buildings comply with environmental rules).

Ideally many of these changes should be done at the international level. But doing so is far slower and much more difficult to achieve. Declarations by intergovernmental organizations such as the WTO or the World Intellectual Property Organization, or more generally, international soft law instruments, may steer much of the world into better tailoring copyright law so that it eventually becomes totally environmentally friendly.

---


5 See Football Dataco et al v. Yahoo et al, Case C-604/10 (referred by the Court of Appeal, England & Wales, Civil Division, 2010), available at www.curia.europa.eu [hereinafter Football Dataco, C-604/10].


8 de Terwangne, Cécile (2000), Société de l’information et mission publique d’information, University of Namur, p. 622 (Doctoral thesis defended at the University of Namur, available at the CRIDs).

9 Id. at 620.


UK Copyright Act § 45-50; Copyright and Rights in Databases Regulations § 20.2 (Schedule 1).


Infopaq, C-5/08 at #.


Painer, above.

However, the CJEU adopted the merger doctrine in an implicit and rather confused manner.

Sofwarová, C-393/09 at para. 49.

use of Public Sector Information, OJ (L 345), p. 90-96 (31 December 2003) (further referred to as the
‘PSI Directive’).

Ricolfi, M., M. van Eechoud, F. Morando, P. Tziavos, and L. Ferrao (June 2011), ‘LAPSI Position
Paper No. 4, The “Licensing” of Public Sector Information’, Diritto e Informatica, Special Issue, p. 3
No. 4’].

Id. at 4.

For a summary, see e.g. EPSI Platform (25 February 2010) ‘State of Play: Public Sector Information in
the United States’,

See http://creativecommons.org accessed 5 June 2011.

Ricolfi, ‘LAPSI Position Paper No. 4’ at 8.

See Derclaye, Estelle (2008), ‘Does the Directive on the re-use of public sector information affect the
State’s database sui generis right?’, in Jens Gaster, Eric Schweighofer and Peter Sint (eds), Knowledge
‘Review of the PSI Directive’].

Berne Convention for the Protection of Literary and Artistic Works of September 9, 1886, last amended

Agreement on Trade-Related Aspects of Intellectual Property Rights, Annex 1C of the Marrakesh
Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on 15 April 1994,
available at http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm

Ricolfi, ‘LAPSI Position Paper No. 4’ at 14; ‘Review of the PSI Directive’.


See e.g. UK Copyright Act § 144.
38 Id. § 6.

39 Id. § 11.

40 Id. § 10.

41 On pricing, see also Ricolfi, M., et al. (June 2011), ‘LAPSI Discussion Paper No. 1: The principles governing charging for re-use of public sector information’, *Diritto e Informatica*, Special Issue, p. 7, (forthcoming), soon available at http://www.lapsi-project.eu (proposing that re-users should pay a charge only if the state’s costs for providing the PSI is above the amount they have paid through their taxes) [hereinafter Ricolfi, ‘LAPSI Discussion Paper No. 1’].

42 In some cases, states may want to charge for PSI, owing to differences in general taxation rules in the different Member States and in accordance to the principle of subsidiarity. For proposals in this respect, see Ricolfi, ‘LAPSI Discussion Paper No. 1’.


45 See above at fn. $$
46 See mainly UK Copyright Act § 78, 79 and 81.

47 See UK Copyright Act § 77-85.


49 Derclaye, ‘IP rights and global warming’ at 284-85.

50 Infosoc Directive at Art. 4.

51 Infosoc Directive at Art. 5(3)(o).


53 See UK Copyright Act § 45-50 and Copyright and Rights in Databases Regulations § 20.2 (Schedule 1).

54 See 17 U.S.C. § 1201 (which inserted the DMCA).


58 Id. at § III.A.

59 Compare ProCD v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) with Vault v. Quaid, 847 F. 2d 255 (5th Cir. 1988).