

EXERCISING MORAL COPYRIGHTS FOR EVOLVING PUBLICATIONS

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1 Extension Rights as an Aspect of Moral Copyrights

Intellectual property legislation makes a distinction between *copyright* and the *moral rights of the creator of the work*. These moral rights include the right of attribution, the right to have a work published anonymously or pseudonymously, and the right to the integrity of the work. The preserving of the integrity of the work bars the work from alteration, distortion, or mutilation. Anything else that may detract from the author's relationship with the work even after it leaves the author's possession or ownership may bring these moral rights into play.

Because of the ambiguity of the term 'moral rights', which can in fact apply to other things besides authors' rights, the present article will use the terms *moral copyright* and *economic copyright*. Although not fully correct, they are fairly often used, and they are more concrete than the terms mentioned above.

These concepts apply when the copyright object is a fixed publication - a kind of object than can be copied, transferred, archived, and of course read, once the writing of it has finished. With contemporary technology we should also consider evolving publications, in the sense of works that can be amended and extended over time, by the contributions of the original authors but also by other people.

Small steps in this direction are being taken when journal publishers, for example, invite readers to contribute comments to web pages for specific publications.

The emergence of evolving publications means that issues that were of marginal interest for fixed publications suddenly become more important. Consider in particular the question of who has the right to make changes to a publication, and in particular to a fixed publication. Suppose the author of a scientific article has contracted with a publishing company to publish her article, and consequently she has transferred her (economic) copyright to this publisher. There arises an issue whether some part of the contents of the article should be changed. Who has the authority to make this decision - the author or the publisher?

This question must have been of only hypothetical interest in the days of paper- print technology, since the printed copies of the article could not be changed, barring a 1984 scenario. One could imagine a disagreement concerning whether the journal should publish an erratum or not, but in any case the erratum was a separate textual entity which could be identified as such.

The matter becomes less trivial with today's technology, and even for purportedly fixed publications, since whoever controls the server(s) where the article is stored will have the technical means to change the article at will. The possibility of unauthorized changing of an article may be counterbalanced by the existence of many electronic copies of the article among readers, but this still does not solve the question what happens if the author wishes to make a change and the publisher refuses.

It is obvious, it seems, that the right of decision concerning changes to an article is a part of the moral copyrights, which is usually considered as an unalienable right of the author. An important question will then be by what means will the author be able to exercise her unalienable right of making changes to her work.

A possible objection to this question may be that published works should not be changed at all; once published they should remain unchanged. However, the concept of "changing a publication" must be understood as either "publishing a separate amendment" or "defining a new version of the publication" while preserving older versions for reference. Errata and other amendments are the traditional method, even in paper-print technology, whereas the use of successive versions is made possible by modern information technology.

The need for being able to change a publication, in that sense of change, is therefore of some relevance even for publications that are in principle considered as fixed. However, as already said, a major change of publication paradigm arises when a publication is considered as a continuously changing entity, where new information may be added on a regular basis. This

concept is not limited to news channels and blogs. Consider for example a review article (also called a survey article) for a specialized scientific area, which may have an author-in-charge who updates the review as new results become available.

In any such case it is natural to consider the sequence of versions as instantiations of one single piece of work, and not as unrelated pieces of work. It is in the author's interests, and a natural part of her moral rights to the work, that she should be able to make new versions available, so that everyone who wishes to retrieve this particular work by this author will primarily see the current version of the work as specified by this author.

The question of access is therefore of paramount importance. Even the traditional copyright concepts do not of course make it possible for a person to "hijack" someone else's versioned publication, since each version must carry the correct author name, even if the hijacker chooses to use the same title for the article as for the original. (Hijacking may still be possible in exceptional situations, for example if the original author and the hijacker have exactly the same name or if a pseudonym was used). However, with traditional technology the question of the visibility of the work and of its versions was a question of the publisher's marketing arrangements, and if the publisher were to refuse to market a new version of a piece of work then there was not much the author could do about it.

Modern information technology has resulted in an entirely different situation, in two ways: the possibility and the utility of evolving publications has increased dramatically, and at the same time there can now be technical solutions whereby each author can have full control of that aspect of her moral copyrights that concerns the evolution of her publications. The following sections will make a concrete proposal for how this can be achieved.

2 Article Index Pages

A technical solution for author control of evolving publications must be based on a few obvious observations: it must be based on Internet and World-wide web technology, and it must be able to accommodate both open-access and commercial publication. It must be designed in such a way that the author has full control of the moral copyrights aspect, but also so that she can delegate the practical arrangements to a service provider. Finally, in order to guarantee the author's control of the arrangements, it must be possible for the author to change the delegation and obtain another provider for the moral copyrights services.

Our proposal is to make use of two types of constructs:

Article Index Pages (AIP) and Author Internet Names (AIN). An article index page is then a URI (for example, a URL) that serves as the unique identifier for the work, including the case of an evolving work. The URI should harbour a humanly readable webpage definition that contains links to the full-text document, including its successive versions, as well as bibliographic information and other relevant information. It should also harbour a structured representation in a processing-friendly format that expresses the same information in e.g. XML notation.

The choice of URI for the article index page is a significant issue. It must of course consist of a suitable domain name followed by an identifier for the particular publication within that domain. It would not be appropriate to use the domain name of the publisher of the article, since the author should be able to change the service provider for the article index page, whereas the publisher will often have acquired the economic copyright for the article.

Since the moral copyrights belong inalienably to the author, the correct solution must therefore be to let the URI of the article index page be based on an identifier that is specific for each author, i.e. an Author Internet Name. In addition to the Author Internet Name one may simply use a serial number, or the year of first

publication followed by a serial number. Including the year may be preferable since in many cases one will wish to assign identifiers retroactively and incrementally to an author's publications during earlier years, and a single serial numbering could then mix publications from different years in a counterintuitive way.

The author internet name may be constructed as a standard Internet domain name, or as an item in a namespace within one single Internet domain that will then need a separate resolver. The first approach has the advantage that it can be implemented with standard Internet DNS servers, but it may not be possible for technical reasons. The next section will discuss this topic.

3 Assignment of Author Internet Names

How can one best assign individual Internet names to a large number of authors in a systematic and reliable way? The .name top domain is an obvious possibility since it provides for domain names such as:

Lars.Svensson.name

but it has several weaknesses, in particular the lack of applicable method when several persons have the same name, and the lack of an authentication mechanism besides the possibility to retroactively challenge the acquisition of a particular domain.

A systematic solution to these problems would require

obtaining another top-level domain, besides .name or obtaining a change in the format and the procedures for the .name domain. Neither of these alternatives is very realistic. The most reasonable solution is therefore to define a namespace within an existing domain, which can make it possible to have author domain names like

aip.name/Svensson.Lars

where aip stands for Article Index Page, except that the requirements of disambiguation and authentication must also be taken into account. Disambiguation is the most easily obtained using a numerical post-x, for example

aip.name/Svensson.Lars.23

It will be important that the distinguishing number is used consistently, even when there is no name collision, in order to avoid problems if a second person with the same name appears at a later time.

It will also be important to have a practical solution for authentication in order to assure that an author URI can only be obtained by a person having the name in question. Moreover, the process for assigning author URI:s must also be able to produce a list of the registered persons having the same name, with sufficient information so that a user can determine who is who.

This means that an assignment and resolution service for author URI:s should rely on one or more trusted sources for information about clients, that is, persons wishing to obtain an author Internet name.

Fortunately, in the case of scientific publications there do exist sources that can be trusted, namely, the personnel registers and student registers of universities and other research institutions.

These registers normally contain information about how each listed person can be reached, in particular with an email address, and they also contain characterizing information for each person.

A practical author name service for academic use should therefore request new clients to identify themselves with reference to their home institution and to the identifier that is used for them there, for example their employee number. The service could obtain information from the trusted source and send the confirmation information to the author's registered address, usually by email. This would be a simple and quite reliable way of assigning author URI:s, with the obvious restriction that it will only work for persons having an academic affiliation, and if the information channel to that particular institution has been implemented.

The distinguishing number must be assigned by the author name service. This may be done by sequential numbering, or by using some information that is

available from the trusted source, such as the last digits of the person's employee number, with escape in case of conflict.

Both the mechanisms for relating to trusted sources and the format and choice of distinguishing numbers may differ from country to country. It would be reasonable therefore to have separate author name services for different countries, which in turn means that the author Internet name should have a country code as one of its components. These considerations suggest a structure for the author 'domain name' such as aip.name/se/Svensson.Lars.23

so that the URI for a particular article could look like aip.name/se/Svensson.Lars.23/2010/008/ where se is the country code in this example and aip should be interpreted as article index page. (The domain aip.name has already been registered for this purpose).

An additional issue concerns the choice of name format. The .name top-level domain is described as using identifiers of the form first.name.last.name where \first name" is said to mean given name, and \last name" is said to mean family name. This is consistent with the practices in some countries but not in others; in many countries one normally writes the family name first. There are also other conventions that vary from country to country, such as the use of double family names in Hispanic countries, the use of patronymics in several Slavic countries, or the use of a \middle initial" and postfixes such as Jr. and III in the United States.

The variety of naming conventions provides an additional reason for including a country identifier in the author Internet name (AIN) An AIN consisting of country code, family name, given name and distinguisher may then be used so that specific countries can define their own conventions for use within the family name or the given name field, when needed for representing multiple names in either of these fields.

Some practical details: Since many names are unique, and since the numerical distinguisher may seem annoying when it is obviously not relevant, one may consider a convention where it may be replaced by a dash character in those cases, for example aip.name/se/Svensson.Nebukadnessar.- The dash is replaced by the digit 1 if a second person with the same name shows up, and the dash and the 1 are considered as equivalent.

The order between the family-name and the given-name field is purely a matter of taste. My own preference would be to put the family name first since this is the way almost all countries write names in

alphabetical listings¹

4 From Article Index Page to Full Text

With the structure proposed here, three layers of Internet facilities will be involved in the access to a particular article. There is the URI (one or more) where the full text of the article is published. Above it, there is the Article Index Page (AIP) which has a persistent URI while its contents may change with time. At any one time, the AIP contains URI:s that point at the locations containing the full text of the article, but these pointers may change. Finally, there is the resolver service for author Internet names that identifies the location of the AIP for a particular author. In a situation where the economic copyright of an article has been transferred to a publisher, the author retains control of the contents of the AIP and the publisher has control of the fulltext server.

In order for this structure to be as simple as possible, it is useful to require that the author name service contains one single forwarding link that applies for all the AIP of a given author. Each author will then contract a service provider to manage her or his AIP, unless she wishes to take this responsibility herself. If some of the AIP for a given author are to be located elsewhere, then this should be a facility provided by the AIP service provider, and not by the author name service.

In fact, the need for forwarding links for AIP arises not only if an author wants to split her business between several service providers, but also for articles with several authors, for example.

Likewise, the author name service will sometimes have to declare several author Internet names as synonyms, for example if a person changes her family name when getting married. It may also be appropriate to deal with diacritics in this way, so that Ångström and Angstrom are declared as equivalent, for example.

5 Conclusion

We have argued that evolving publications will be an increasingly important issue in the context of Internet publication, and that this raises new issues with respect to authors' moral copyrights. We have proposed that Article Index Pages (AIP) based on Author Internet Names (AIN) will be important for enabling authors to exercise their moral copyrights in full, and described in outline how these constructs may be implemented.

An experimental implementation of these notions is being prepared.

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¹ Iceland is one of the few exceptions to this rule