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Creative Commons Meets Open Access

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Copyright

The copyright system allows the creator to establish and legally defend ownership rights in intangible creations. The author does not own the tangible expression (e.g. the book) but she does have property rights in its contents. While this was a great step forward in the economic and social position of the author [1] the system also limits the creativity of others. This limitation is in place since the legal system revolves around the concept of individual property where exceptions or permissions to use anothers property are derogations from the norm. The limitations have the effect that the intellectual property of one creative artist cannot be taken and used as the foundation of new products. In other words artists cannot re-mould or remix that which is protected and by doing so create new intellectual products. This is a serious side effect in cultural and scientific fields of endeavour [2]. The natural way in which to use anothers property is to ask permission. This is method is also used in intellectual property. Permission to use is often granted under certain conditions (for example economic remuneration or limitations to extent of use). Obtaining permission can be a complex affair since there are several barriers on the way. These may include, amongst other things, identifying and locating the owner (or co-owners) and then being able to communicate ones requests in the correct form and language.

Creative Commons
In an effort to remove some of these barriers the Creative Commons (CC) project was launched in 2001. Taking inspiration in part from the Free Software Foundation's GNU General Public License [3] the first project of the CC's was the release of a set of copyright licenses free for public use. Following this CC has developed a Web application that helps people dedicate their creative works to the public domain or retain their copyright while licensing them as free for certain uses, on certain conditions.

The licensing project has been a great international success and is still under development. In 2005 the CC launched another project – the Science Commons whose purpose is to apply the philosophies and activities of CC in the realm of science. The purpose of this article is to explain the fundamentals of the CC & Science Commons.

The CC licensing project wanted to achieve three main goals: (1) simplifying for creators to share their creations, (2) create licenses that would be enforceable in courts and (3) use internet technology as an infrastructure where creative people could easily find and share their products. To fulfil all three goals each license is created in three different forms: (1) A commons deed which is easy to read and understand, (2) a legal license which is enforceable in court, and (3) as digital code which can be read by search engines to facilitate internet searches of CC licensed material.

The user-friendly goal in (1) is founded on four easily recognisable symbols.

Figure 1. The four basic symbols

A practical example
Ludwig is a pianist who composes and records his own music. Since Ludwig is interested in sharing his music he turns to CC for licensing help. On CC's webpage Ludwig begins by choosing what type of intellectual property he wants to protect (for example audio, images, video). After choosing audio Ludwig is faced with some simple questions. Whether he allows commercial use of his work and whether he allows modifications of his work. For the former the possible answers are either yes or no. For the latter the choices are:

- Yes
-

Yes as long as future works are shared under the same conditions as the original

No

From these questions Ludwig can create six different licenses (figure 2), which can be portrayed as combinations of the four symbols above (where attribution is compulsory).

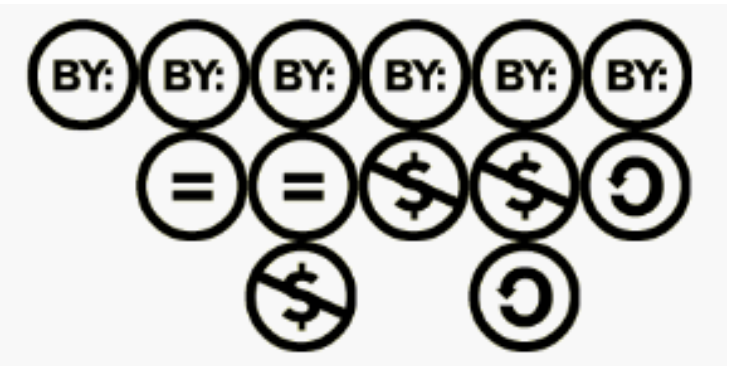

Figure 2. Six different licenses

In our example Ludwig decides not to allow commercial use of his work and that any derivates must be shared under similar conditions. After making his choices the CC website produces (1) a Commons Deed which explains in layman's terms what Ludwig's conditions for sharing are. This document also contains the explanatory images.

This is to re-enforce and increase the understanding of the conditions. Ludwig is also given an html code that he can cut and paste into his webpage. This helps others find the relevant conditions Ludwig has chosen, it also provides a link to the formal license and alerts search engines to the conditions of Ludwig's music. At the same time Lisa, a jazz singer, is looking for music to suit her style. By using the CC search engine (or by using the CC search engine [4] created by Yahoo! [5]).

Figure 3. Ludwig's licenses

Lisa can search for music that is covered by the CC license that allows derivative works to be made. Lisa finds Ludwig's music downloads it and adds her lyrics to the music. After these adaptations Lisa puts the finished work on her website (licensed under the same conditions as Ludwig had chosen since this was a condition for using the original work). Two individual creations (music and lyrics) have been fused together to create a third.

Naturally all this had been possible even without CC. The importance of CC is not that it creates a new possibility per se. The importance of CC is that it works by building upon existing contract and copyright law. Simplifying its use without loosing its effect. This is coupled with the awesome search capabilities provided by internet technology. This in combination with the enormous popularity of both the licensing scheme and the technology has resulted in the CC growing rapidly into a creative force to be reckoned with. Seen in this light CC has created a new possibility for creative people to share each others products.

The science commons

The importance of sharing and communication in the development of culture can hardly be understated. The sharing of knowledge, information and data is especially important in the genre of scientific work where we are regularly reminded that good science involves building on the past. This is sometimes referred to as "standing on the shoulders of giants." [6] Recently there has been a growing awareness on the way in which copyright is being used to protect the business model of the publisher, which in turn is having a negative impact on scientific teaching, development and general access to scientific data [7]. To counteract this there has been a growth in what has been termed open access or open science.

"Open science is variously defined, but tends to connote (a) full, frank, and timely publication of results, (b) absence of intellectual property restrictions, and (c) radically increased pre- and post-publication transparency of data, activities, and deliberations within research groups." [8]

The term open access has been growing in stature and has both come to be associated with academic journals whose use of intellectual property does not limit access to scientific data and to an alternative theoretical approach to knowledge sharing [9]. The Berlin Declaration has defined open access as "…a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community…Open access contributions include original scientific research results, raw data and metadata, source materials, digital representations of pictorial and graphical materials and scholarly multimedia material."

The CC has already used its licenses to aid the spread of scientific knowledge. Schools and universities can make available their course materials under the OpenCourseware license, which is a similar license as explained above. In addition to this the Science Commons [10], a project under the auspices of the CC, has been launched in 2005. The goal of the Science Commons is "…to encourage stakeholders to create areas of free access and inquiry using standardized licenses and other means; a 'Science Commons' built out of private agreements, not imposed by the state." The project is

divided into three main activities (1) publishing, (2) licensing, and (3) data.

Publishing, licensing & data
Through digital technologies the methods for delivery and replication of scientific documentation has radically changed. However copyright law has not adapted rapidly enough to support the full use of the potential of the new technology. The publishing project is an attempt to address the conflict between law and technology in relation to scientific publishing. This is done by creating and promoting publishing aids such as pre-print and post-print standard commercial publisher licenses, institutional archive licenses and supporting author self-archiving. The goal of the licensing project is to support the access to unpublished scientific data through material transfer agreements [11]. The data project is struggling with the problem of how to make raw data available to other researchers and the public without having to choose between the extremes of reserving all rights through the copyright approach or no rights through the use of the public domain.

Conclusions

The CC has expanded rapidly since its conception. Its use has not only enabled many creative people to share their work while maintaining control but has also provided better methods for searching and finding material which can be used freely as an alternative to existing copyright legislation (but not in violation of the legislation). The CC idea has also provided a concept around which people can gather and spread ideas on the role of intellectual property in the digitally enabled environment. The commons has become more than a licensing system it has become an alternative way of viewing intellectual property. This alternative, however, does entail a disposal of the system – an approach which has certainly aided its widespread acceptance.

From this standpoint the initiative to begin the science commons is not to be seen as being in competition with the earlier schemes but rather as a method of focusing attention upon an issue which is of importance not only to the scientists involved, research funders, libraries and universities. The issue of open access to science, scientific data, publishing and results is a vital issue of importance to us all.

The power of the CC is to be able to gather a widespread support among all those concerned and to work with the existing system to create a third alternative to the existing dualism of the copyright system which is the choice between “all rights reserved” or “no rights reserved” the Science Commons hopes use the model which has proven successful elsewhere and that is: “some rights reserved”.

Links and notes

[1] Hemmungs Wirtén, E. (2004), No Trespassing: Authorship, Intellectual Property Rights, and the Boundaries of Globalization, University of Toronto Press.
[2] Lessig, L. (2005) Free Culture: The Nature and Future of Creativity, Penguin Books.
[3] http://www.fsf.org/
[4] http://search.creativecommons.org/
[5] http://search.yahoo.com/cc
[6] The expression is often sourced to Newton. However, the metaphor is much older and can be traced at least as far back as to 1159 when John of Salisbury wrote it in his work Metalogicon.
[7] Rabow, I. Den vetenskapliga allmänningen, lecture, Göteborg University April 2005.
[8] Maurer S. “New Institutions for Doing Science: From Databases to Open Source Biology”, European Policy for Intellectual Property Conference on Copyright and database protection, patents and research tools, and other challenges to the intellectual property system, University of Maastricht (November 24-25 2003).
[9] For example Berlin Declaration on Open Access to Knowledge <http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>, Budapest Open Access Initiative <http://www.soros.org/openaccess>, Bethesda Statement on Open Access Publishing <http://www.earlham.edu/~peters/fos/bethesda.htm>, and European Cultural Heritage Online Charter <http://www.ling.lu.se/projects/echo/contributors/charter.html>.
[10] http://sciencecommons.org
[11] Such as the (1995) Uniform Biological Material Transfer Agreement (UBMTA).

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Svensk sammanfattning

Creative Commons-projektet har på mycket kort tid vuxit till ett stort

och internationellt livskraftig projekt som hjälper människor att dela med sig av sina upphovsrättskyddade verk. Projektets internationella spridning omfattar snart även Sverige där projektet har etablerats och är under utveckling med en planerad lansering under hösten 2005. I kraft av projektets popularitet har Creative Commons nu även påbörjat ett projekt vars syfte är att använda grundidéerna och erfarenheterna för att underlätta kunskapsdelning inom vetenskaplig forskning. Syftet med den här artikeln är att presentera grundidéerna och metoderna med vilka Creative Commons underlättar delning av upphovsrättsligt material, samt att visa på vilket sätt Science Commons bidrar till Open Access.