

Open Content Licensing (OCL) for Open Educational Resources

by

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Background

The last ten years have seen enormous change in the way we construct process and disseminate knowledge. It is now possible to communicate a thought, a message or learning plan in the blink of an eye to a world wide audience at very little cost. This capacity has been extended in recent times by the roll out of **broadband** networks that allow rich text audio and visual material to be communicated at rapid speeds and third generation **mobile** technologies that allow communication from any location.

Along with this growth in capacity our social practices have also adapted to the new knowledge environment. **Collaborative, peer and user generated** knowledge construction projects like *Wikipedia*,¹ an online encyclopaedia created by its thousands of users, **online social communities** like *flickr*², a user generated online photo library containing millions of photos and **social networking** places like *MySpace*³ are classic examples. These new developments have been underpinned by the evolution of the **Semantic Web**⁴ (making the Web a more dynamic information network through better management and processing of metadata) and **Web 2.0**⁵ (covering in part the growth of rich user led applications).

In the midst of this “information revolution” one message has floated to the surface. **Seamless Access to Knowledge** has become a key driver of social, economic and cultural development. However much of the digital content we access in the Internet world is subject to copyright and is owned by a particular person or company. We have learnt through the many lawsuits over the distribution of peer to peer (p2p) file sharing software for mp3 formatted music that while the technology can provide enormous scope for access, unless the law supports such access, it will be unauthorised and could lead to legal liability. If the future of learning lies in seamless access then we need to understand how to ensure that we can do this effectively, efficiently and legally. We also need to encourage existing copyright industries to accommodate the disruptive energies of digital technologies in a way that promotes access. Apple has gone some way towards this with its *iTunes* music service.

This paper outlines a legal mechanism that has been developed, known as **open content licensing** that provides copyright owners with a facility for sharing their content with the world and thereby establishing a zone or space on the Internet for lawful and seamless access. It is not a mechanism that will be used by everyone, but increasingly throughout the world there is a call for **publicly funded** knowledge to be released in a manner that allows **open access** and a level of **re-use**. Importantly, open content licenses can be represented in machine readable metadata which can allow the technology to understand the legal obligations attaching to a particular document. On the business front, companies like Revver⁶ have embraced the notion of open content and used this as the basis for their service or advertising driven business.

¹ www.wikipedia.org

² www.flickr.com

³ www.myspace.com

⁴ T. Berners-Lee, J. Hendler and O. Lassila (2001), “The Semantic Web”, *Scientific American*, www.sciam.com/article.cfm?articleID=00048144-10D2-1C70-84A9809EC588EF21

⁵ See Tim O’Reilly, “What is Web 2.0”, www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html

⁶ www.revver.com

Ultimately the belief is that if we can harness the great store of information that exists we can tackle problems and provide insights and solutions on a scale greater than we have ever done before.

Copyright essentials

The starting point for understanding the notion of open content licensing is in understanding the basic principles of copyright law. In the digital environment – the Internet world – an enormous amount of the material we wish to access will be subject to copyright law. Furthermore as digital technologies inherently reproduce and communicate material in their normal process of operation; by mere use we activate the potential for copyright infringement. If we are to encourage a more flexible process of sharing knowledge in the form of educational resources we need to appreciate how the current road rules of knowledge – particularly copyright – operate.

Copyright law which takes definition from international conventions⁷ and is similar in most countries provides that you cannot reproduce/copy or communicate/transmit to the public copyright material (literary, dramatic, musical and artistic works, films and sound recordings) without the permission of the copyright owner. There are some important (yet limited) exceptions to this broad restriction. Permission may be provided by a statutory or compulsory license (usually subject to the payment of a levy, royalty or license fee) or not required where an insubstantial part is utilised, fair use/dealing occurs or another exception (user right) exists. Private use and educational use in some instances will amount to fair dealing/fair use and in others they may be subject to a statutory or compulsory license.

Therefore while the new digital technologies possess an enormous capacity to disseminate knowledge, copyright law will play a key role in determining the legality of any such act. Copyright owners are not obliged to give permission to allow others to re-use their material even with payment of fair compensation unless they are compelled to do so by the law. There are some compulsory licenses which are commonly found in the copyright laws of each country but they do not cover every situation. For example, in most countries you can make a recording of any musical composition pursuant to a compulsory license.

In short, the digital environment, by its very nature, presents great potential for copyright infringement and in most cases unless permission has been obtained or some other authorising provision or agreement is in place you will not be allowed to reproduce or communicate copyright material. This could lead to civil liability in the form of damages or criminal responsibility remedied through fines or potentially imprisonment. In the fast paced and serendipitous world of the Internet the traditional notion of obtaining permission before re-use is out of place. The key to seamless access to knowledge – through open access, new business models or e commerce mechanisms – is to work out how that permission process can be automated.

⁷ See: Berne Convention for the Protection of Literary and Artistic Works 1886 (Berne Convention), Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 (TRIPS Agreement) and bilateral free trade agreements (FTAs) such as the Australia-US Free Trade Agreement 2004 (AUSFTA).

The Creative Commons (CC)⁸

Professor Lawrence Lessig of Stanford University (USA) and a number of his colleagues frustrated by the fact that the technology offered so much but that negotiability of copyright material under law was so cumbersome came up with the idea of the Creative Commons. Lessig's vision was for a space in the Internet world where people could share and reuse copyright material without fear of being sued – a creative commons. In order to achieve this creative commons a simple yet very effective licensing model, drawing inspiration from the free software movement, was born. The idea was to ask copyright owners, where they were willing, to agree or give permission for their material to be shared through a generic license that acted as permission in advance.

To understand this process better we need to understand the fundamentals of copyright ownership. Copyright protects the expression of an idea, not the idea itself. The creator, author or maker of copyright material is normally the first copyright owner of what are known as their exclusive or “economic” exploitation rights (such as reproduction and communication). If a person is employed and their creative endeavours are undertaken in the course of their employment the employer will in most instances (and there are exceptions) be the copyright owner. Furthermore where creators and authors are the copyright owners, they often assign their copyright to commercialising agents *e.g.* publishers, as part of the bargain for having their work widely disseminated.

Regardless of the fact the economic rights inherent in copyright ownership have been assigned, in many countries a creator or author will also hold moral (or personal) rights such as the right to be attributed as the author of the work and the right to have the integrity of the work preserved. These rights exist independently of the economic rights of the copyright owner and in some countries are inalienable while in others they can be waived or consented away.

The right to exercise any of the economic rights of the copyright owner such as reproduction or communication is given through a permission that is normally called a license. A license may be voluntarily given or as explained previously, compelled by law.

Creative Commons is a world wide project aimed at building a distributed information commons by encouraging copyright owners to license use of their material through open content licensing protocols and thereby promote better identification, negotiation and reutilisation of content for the purposes of creativity, education and innovation. It aims to make copyright content more “active” by ensuring that content can be reutilised with a minimum of transactional effort. As the project highlights, the use of an effective identification or labeling scheme and an easy to understand and implement legal framework is vital to furthering this purpose. This is done by establishing generic protocols or license terms for the open distribution of content that can be attached to content with a minimum of fuss under a CC label.

In short the idea is to ask copyright owners – where willing – to “license out” or distribute their material on the basis of protocols designed to enhance reusability and build out the information commons.

Creative Commons is a not-for-profit corporation based in San Francisco and sponsored by many individuals and organisation including Google Inc, the MacArthur Foundation and the Hewlett Foundation.⁹

⁸ See generally creativecommons.org

⁹ <http://creativecommons.org/support/supporters>

Creative Commons licensing – open content licensing

CC licenses are part of a genre of licenses that are used to negotiate legal rights in digital content. For example, *Wikipedia*, the online peer produced encyclopaedia, uses the open content license known as the GNU Free Documentation License (GFDL). Many other types of open content licenses exist; however, the CC licenses have gained significant attention and popularity over the last three years. Compatibility of content licensed under the different licenses is a key issue for the future.¹⁰

Unlike the GNU General Public License (GNU GPL) from which they took their inspiration, the Creative Commons licenses are not designed for software, but are intended for use in relation to other kinds of creative copyright material: websites, educational materials, music, film, photographs, blogs, etc. Along with the text of the various open content licenses, the project has developed metadata that can be used to associate creative works with their license status in a machine-readable way.

In addition to certain “baseline” rights and restrictions which are included in all Creative Commons licenses, the copyright owner can choose a number of licensing options, which can be used alone or in combination.

Baseline features

The following features are common to all Creative Commons licenses:¹¹

- licensees are granted the right to copy, distribute, display, digitally perform and make verbatim copies of the work into another format;
- the licenses have worldwide application that lasts for the entire duration of copyright and are irrevocable;
- licensees cannot use technological protection measures to restrict access to the work;
- copyright notices should not be removed from all copies of the work; and
- every copy of the work should maintain a link to the license;
- attribution must be given to the creator of the copyright work (**BY**).

Optional features

Copyright owners can choose from among the following optional license conditions:

- **Non-commercial (NC):** others are permitted to copy, distribute, display and perform the copyright work – and any derivative works based upon it – but for non-commercial purposes only;
- **No derivative works (ND):** others are permitted to copy, distribute, display and perform exact copies of the work only and cannot make derivative works based upon it;¹²

¹⁰ See further: “Lawrence Lessig on Compatibility”, <http://creativecommons.org/weblog/entry/5709>

¹¹ “Baseline rights and restrictions in all licenses”, creativecommons.org/about/licenses/fullrights

¹² Note that the “No derivative works” option is incompatible with the “Share alike” option.

- **Share alike (SA):** others may distribute derivative works only under a license identical to that covering the original work.¹³

By mixing and matching these elements, copyright owners can choose between the following six core licenses:

- **Attribution (BY)** – This is the most accommodating of the licenses offered, in terms of what others can do with your work. It lets others copy, distribute, re-use and build upon your work, even commercially, as long as they credit you for the original creation.
- **Attribution-Non-commercial (BY-NC)** – This license lets others copy, distribute, re-use and build upon your work, as long as it is not for commercial purposes and they credit you as the original author.
- **Attribution-Share alike (BY-SA)** – This license lets others re-use and build upon your work even for commercial purposes, as long as they credit you and license any derivative works under identical terms.
- **Attribution-Non-commercial-Share alike (BY-NC-SA)** – This license lets others re-use and build upon your work, as long as it is for non-commercial purposes, they credit you and they license their new creations under identical terms.
- **Attribution-No derivatives (BY-ND)** – This license allows use of a work in its current form for both commercial and non-commercial purposes, as long as it is not changed in any way or used to make derivative works, and credit is given to the original author.
- **Attribution-Non-commercial-No derivatives (BY-NC-ND)** – This is the most restrictive of the six core licenses. It is often called the “advertising” license because it only allows a work to be copied and shared with others in its original form, and only for non-commercial purposes and where credit is provided to the original author. This license does not allow the creation of derivative works, or the use of the work for commercial purposes.

Each Creative Commons license is expressed in three ways:¹⁴

1. the **Commons Deed**, that is, a simple, plain-English summary of the license, together with the relevant icon/s that indicates the scope of permitted use;
2. the **Legal Code**, that is the dense legal “fine print” license document; and
3. the **Digital Code**, that is, metadata that highlights what license is attached to the content.¹⁵

¹³ Note that the “Share alike” option only applies to derivative works and is incompatible with the “No derivative works” option.

¹⁴ See creativecommons.org/about/licenses/meet-the-licenses

¹⁵ For further information see: “Creative Commons Developers – Using Creative Commons Metadata” at <http://creativecommons.org/technology/usingmarkup>

CC implementation

Creative Commons licenses are also being ported or translated to meet the legal requirements of national laws. This has happened in 34 countries with another 20 working on this aspect.¹⁶ The following are notable examples of how the CC licenses are being used across the world:

- The Public Library of Science and BioMed Central license their publications under CC licenses.¹⁷
- Online Opinion, a leading Australian news and opinion website is using CC licenses.¹⁸
- The Australian Creative Resource Online (ACRO) website contains a range of materials (such as audio tracks and still images) which are licensed for use under CC licenses.¹⁹
- The OYEZ Project, founded in 1989 by Jerry Goldman, a Professor of Political Science at Northwestern University, is an archive of recorded oral arguments and bench statements in the Supreme Court of the USA. In June 2003 the OYEZ Project released hundreds of hours of MP3 versions of their archived audio files under a CC license.²⁰
- Online digital music hosting services GarageBand.com, Dmusic.com and Soundclick.com and alternative record label Opsound.org offer CC licenses as an optional tag for all songs uploaded to their websites. As a result, a large portion of the music content hosted on these sites is licensed under CC licenses.
- In their November 2004 issue, *Wired* magazine gave away a CD which features 16 songs released under CC licenses by artists such as the Beastie Boys, Talking Heads front man David Byrne and Brazilian artist Gilberto Gil.
- *flickr* is an online photo library with millions of photos licensed under CC licenses.²¹
- The National Library of Australia utilises *flickr* to enable members of the public to contribute their photographs to the Picture Australia Project, and encourages CC licensing.²²
- Four Docs is an archive and forum for four minute documentaries established by Channel 4 in the United Kingdom and uses CC licenses.²³
- The British Broadcasting Corporation (BBC) has adapted the CC licensing model for use by the BBC Creative Archive, which will allow people to download clips of BBC programmes for non-commercial use.²⁴

¹⁶ See <http://creativecommons.org/worldwide>

¹⁷ See <http://www.plos.org>, <http://www.biomedcentral.com/home/>

¹⁸ See <http://onlineopinion.com.au>

¹⁹ See <http://www.acro.edu.au>.

²⁰ See <http://www.oyez.org/oyez/frontpage>.

²¹ See <http://www.flickr.com>.

²² See <http://www.pictureaustralia.org/>

²³ See <http://www.channel4.com/fourdocs>.

²⁴ See <http://creativearchive.bbc.co.uk>.

In June 2006, Microsoft Corp. released a copyright licensing tool that enables the attachment of CC licenses to works created in Microsoft Office applications.²⁵ In a CC press released dated 20 June 2006, it was stated that the tool will enable the 400 million users of Microsoft Office Word, Excel and PowerPoint to select one of the CC licenses from within the specific application.²⁶

Material that has been released under a CC license can be specifically searched for on the Google²⁷ and Yahoo!²⁸ search engines. For Google, this is possible by choosing the license terms of the work along side the “usage rights” heading in the advanced search mode.²⁹ The Yahoo! advanced search code provides a CC license selection to include in the search.³⁰ The Mozilla web browser provides a search button to facilitate searching of CC licensed material.³¹

A recent court decision of the District Court of Amsterdam in the Netherlands has confirmed the importance of acting in accordance with the conditions prescribed under a CC license. In this case celebrity Adam Curry sued Audax, the publishers of the Dutch magazine *Weekend*, for printing photos of his family that he had uploaded to the online photo library, *flickr*,³² under a CC **BY-NC-SA** license. The Court found that the publishers of the magazine did not have permission to reproduce the photos in a commercial publication. They explained that: “All four photos that were taken from www.flickr.com were made by Curry and posted by him on that website. In principle, Curry owns the copyright in the four photos, and the photos, by posting them on that website, are subject to the [Creative Commons] License. Therefore [the publisher] should observe the conditions that control the use by third parties of the photos as stated in the License.”³³

Why share?

A common question is “why would people want to share digital content?” Some reasons are:

- Ideologically and financially this may be acceptable – the most compelling example is government and the public sector where information is ultimately owned by and for the people.³⁴
- To sponsor access and innovation.

²⁵ “Office Add-in: Creative Commons Add-in for Microsoft Office”, <http://www.microsoft.com/downloads/details.aspx?FamilyId=113B53DD-1CC0-4FBE-9E1D-B91D07C76504&displaylang=en>

²⁶ See “Microsoft and Creative Commons Release Tool for Copyright Licensing”, <http://creativecommons.org/press-releases/entry/5947>

²⁷ See <http://www.google.com>.

²⁸ See <http://www.yahoo.com>.

²⁹ See http://www.google.com/advanced_search?hl=en

³⁰ See <http://search.yahoo.com/search/options?fr=fp-top&p=>

³¹ For example, Firefox <http://www.savingsmountain.com/Firefox.html>

³² www.flickr.com

³³ Curry v Audax Publishing B.V., LJN: AV4204, Rechtbank Amsterdam, 334492/KG 06-176 SR (9 March 2006), <http://mirrors.creativecommons.org/judgements/Curry-Audax-English.pdf>

³⁴ See generally: Government Information and Open Content Licensing: an Access and Use Strategy: Report of the Whole of Government Information Licensing Project to the Queensland Spatial Information Council (October 2006), <http://www.qsic.qld.gov.au>

- Open contenting one version of your material *e.g.* a draft (E Print) or a chapter may in fact be a strategy for enhancing the commercialised version of your content.
- A wish to share with others for creative and educational purposes.
- Publicity – what the free and open software movement calls “egoboo” or reputation within the open community which in some cases will be exploited commercially down the track.
- Negotiability – through technologically implemented generic protocols that can be utilised with the click of a mouse.
- As part of a new business model.
- To enhance knowledge and culture.
- “What is junk to one may be gold to another” – the idea that the off cuts or digital junk of one person may be the building blocks of knowledge and creative genius for another.
- “Indirect appropriation” – money, design and use of end product, pleasure or social profile gained through involvement in peer production.³⁵

A person’s motivation for sharing will have an impact on the license they choose to attach to their material. Some argue that open content should have no restrictions on re-use, others will argue it should require attribution, while others will demand the share alike requirement.³⁶ Ultimately, and subject to any other legal obligation or compatibility requirements, the choice is one for the copyright owner to make.

Does CC mean that copyright law is redundant?

As stated above, Creative Commons draws on the work of the free software movement. “Free software” means free as in freedom (to access code) not price and has come to the fore in an environment of proprietary software distribution where source (human readable) software code is hidden from public view. The free software model is to distribute software with the source code open and accessible so that the recipient can easily and better understand the software. This in turn enhances further innovation, error detection and/or security testing. However, the free software movement requires through its General Public License (GNU GPL) that if you use open code and innovate upon it and then *distribute* that code in a derivative work you must disclose the code of the derivative work to the person to whom you are distributing the code (which in many cases is effected by disclosure to the whole community). As has been written elsewhere:

The powerful insight that Richard Stallman and his advisers at the Free Software Foundation ... discovered was that if you want to structure open access to knowledge you must leverage off or use as a platform your intellectual property rights. The genius of Stallman was in understanding and implementing the ethic that if you want to create a community of information or creative commons you need to be able to control the way the information is used once it leaves your hands. The regulation of this downstream activity was achieved by claiming an

³⁵ Y. Benkler (2002), “Coase's Penguin, or Linux and the Nature of the Firm”, 112 Yale Law Journal 369.

³⁶ “Lawrence Lessig on Important Freedoms”, <http://creativecommons.org/weblog/entry/5719>

*intellectual property right (copyright in the code) at the source and then structuring its downstream usage through a license (GNU GPL). This was not a simple “giving away” of information but rather a strategic mechanism for ensuring the information stayed “free” as in speech. It is on this foundation that we now see initiatives like the Creative Commons expanding that idea from open source code to open digital content.*³⁷

The point being made is that models like Creative Commons rely on the power of copyright ownership and law to structure open access downstream. In this sense CC is not anti-copyright, rather it uses copyright as the basis for structuring open access. In this sense CC is designed to provide a new (or some might say alternative) model for managing copyright in digital content.

How does CC relate to the Open Access (OA) movement?

Creative Commons and the allied Science Commons³⁸ are seen as important means for allowing authorised “open access” to creative and scientific materials. Open Access as defined in the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* (2003)³⁹ and the *Bethesda Statement on Open Access Publishing* (2003)⁴⁰ seeks to open up access to research, data sets and scholarship especially that which is publicly funded.⁴¹ Creative Commons licenses are seen as a mechanism through which open access to research can be promoted.⁴² For example if I write an article on the legal aspects of downloading mp3 music files from the Internet I might put that up on my website with a CC badge representing that the content is licensed under Version 2.5 of the Australian CC license and allows the user to reproduce, recast and communicate the content so long as they provide attribution (Attribution – **BY**), do not use it for a commercial purpose (Non Commercial – **NC**) and share their innovations with the open access community (Share alike – **SA**).⁴³

In the remix world of CC where do moral rights fit?

The generic CC licenses which derive from US law now entrench the protection of the moral right of attribution by making it a core term of every license; however the moral right of integrity is only guaranteed under the US license by choosing the “no derivatives” option or by the operation of some other law.⁴⁴ The Australian licenses have been drafted in a manner that protects the moral rights of attribution and integrity as found in national legislation as core terms of the licenses. This is the general trend with Creative Commons licenses outside of the US and Canada.

³⁷ A. Fitzgerald and B. Fitzgerald (2004), “Intellectual Property in Principle”, LBC/Thomson, Sydney.

³⁸ www.sciencecommons.org

³⁹ <http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>

⁴⁰ <http://www.earlham.edu/~peters/fos/bethesda.htm>. See also OECD, Declaration on Access to Research Data From Public Funding (2004), http://www.oecd.org/document/0,2340,en_2649_34487_25998799_1_1_1_1,00.html

⁴¹ See further: Dan Hunter (2005), “Walled Gardens”, 62 Washington and Lee LR 607.

⁴² R. Poynder (2005), “The Role of DRM in Open Access”, www.indicare.org

⁴³ See generally: S. Kiel-Chisholm and B. Fitzgerald (2006), “The Rise of Open Access in the Creative, Educational and Science Commons”, <http://eprints.qut.edu.au/archive/00003869>

⁴⁴ In relation to visual artists see: section 106A of the US Copyright Act 1976.

CC as a model for making copyright more active

There is great concern worldwide that too much copyright material is left inactive in archives (*e.g.* government, museums) because the process of negotiating the license is too time consuming or expensive, even where the copyright owner does not want to make money. Now that we have a vast array of digital technology that can present much of this material to the world cheaply and rapidly, more and more institutions are considering how they might allow greater access to their archives/knowledge (*e.g.* BBC). A facility for accessing archived material, especially publicly funded material, will increasingly be demanded as part of the landscape of information management and creative innovation. CC provides an effective and simple way in which sharing and collaborative effort can be facilitated in the realm of digital content and hopefully a way in which inactive copyright material can be given new life.

CC and sustainable business models

As with free and open source software it has become apparent that it is possible to have business models wrapped around open content. With software the approach has been to provide services along with the open code *e.g.* the Redhat model,⁴⁵ or provide value added code or knowledge under a dual licensing model, the MySQL model⁴⁶ – one open and one restricted/commercial.

Statistics show us that the initial trend under the Creative Commons model has been that the majority of people prefer to license out under the non commercial condition.⁴⁷ This means they reserve the right to commercialise and to set up a traditional commercial contract with a client. Therefore I can give permission in advance to use my content for non commercial purposes but the minute you use it commercially you are required to obtain permission in the form of a commercial contract. This dual licensing approach provides open access for non commercial purposes but restricted rights of re-use for commercial purposes. Some licenses – not CC – are offering these options within the same license. That is, if you use non commercially you are governed for example by clause 4 of the contract while if you use commercially you are governed by clause 5 which requires a license fee to be paid.⁴⁸

A number of people have used CC licensing as a tool to promote and profile their work and to even convince commercial publishers to enter foreign markets. The ability for people to access content and translate it has opened up new possibilities.

As well in the case of open access journal articles we have seen the development by publishers of business models where researchers pay for their open access academic work to be refereed and published in a commercial format– the so called Gold Model.⁴⁹

Revver, a user generated video sharing website, presents yet another emerging business model.⁵⁰ Creators upload their videos to the Revver website under a

⁴⁵ www.redhat.com

⁴⁶ www.mysql.com

⁴⁷ “Midyear license adoption estimates”, <http://creativecommons.org/weblog/entry/5936>

⁴⁸ See also: “Commercial Commons License”, <http://www.openbusiness.cc/commercial-commons-license/>

⁴⁹ See further: R. Poynder (2005), “The Role of DRM in Open Access”, http://www.indicare.org/tiki-read_article.php?articleId=93

⁵⁰ www.revver.com

CC BY-NC-ND license and an advertisement is embedded in the video. If and when the viewer clicks on the advertisement which appears towards the end of the video a revenue stream is activated which is shared 50/50 between the website and the creator. One popular video known as “The Extreme Diet Coke and Mentos Experiment” depicting two would be scientists feeding mentos lollies into diet coke bottles to create a fountain effect has been downloaded millions of times and has generated tens of thousands of dollars in revenue for its creators. Increasingly entrepreneurs are examining ways in which the use value of copyright material can be exploited through new business models.

CC and open educational resources (OER)

Creative Commons and other types of open content licenses provide the basis (necessary permission) on which to share and re-use open educational resources – MIT Open Course Ware is a prime example.⁵¹ Educational resources will in most instances involve copyright literary, dramatic, musical or artistic works, films or sound recordings. To this extent permission of the copyright owner, a lawful exception such as fair use/dealing or a statutory or compulsory license will be needed to authorise re-use (of the whole or a substantial part of the material) through, for example, reproduction or communication. An open content or source code license represents a convenient method for sharing and re-use of copyright material by providing the necessary permission.

In the sharing and re-using (by teachers or students) of learning objects, research results, publications, or other materials for educational environments open content licensing will increasingly play a role. Knowledge management in schools and universities will need to be able to understand and harness the power of this new dynamic.⁵² As mentioned above, Creative Commons has been embedded as a standard search function in major search engines and web browsers.

The rise of collaborative innovation (where people are encouraged to research as part of a team, Grid computing is but one example) and serendipitous innovation where people enhance knowledge through stumbling on to someone else’s work (for example, via the Internet) will demand that we understand how to share knowledge and to do it legally.

The custodians of publicly funded research and government owned copyright material will also be under tremendous pressure to free up such material for re-use for educational purposes.

In Australia, AEShareNet has developed a Free for Education License (FfE) which can be used by government or any other person or entity to label content that can be utilised for educational activities.⁵³

Creative Commons is also assessing the role of an educational license and the leader of the cc-education project is David Wiley, Founder of OpenContent⁵⁴ and Assistant Professor of Instructional Technology, Utah State University. Recently Wiley explained, “The current community of practice around educational uses of the [Creative Commons]

⁵¹ ocw.mit.edu, see also LAMS Community, www.lamscommunity.org

⁵² B. Fitzgerald, “Structuring Knowledge Through Open Access: The Creative Commons Story” in C. Kapitzke and B. Bruce (2005) (eds.), *New Libraries and Knowledge Spaces: Critical Perspectives on Information Education*, Lawrence Erlbaum and Assoc.

⁵³ www.aesharenet.com.au

⁵⁴ <http://opencontent.org>

BY-NC-SA license (MIT OCW, USU OCW, Johns Hopkins OCW, etc.) strongly encourages teachers to reuse the OCW materials in their courses...Use by teachers in classrooms, by students, and by people with no institutional affiliation is strongly encouraged. Of course non commercial doesn't only mean teaching and learning; many types of research are covered by the definition as well."⁵⁵

Some commentators have suggested that the sustainability of OER may lie in developing non institutional education communities – like the free software community – that can act as a reliable, continuous, cheap and effective resource upon which to build open education.⁵⁶

The challenges

The operation of the CC model requires some fundamental elements and we need to be sure these are in place before this model is implemented in the education sector. We need to be clear that the person or entity that provides permission under a Creative Commons license is indeed the copyright owner. In the university sector in many countries Intellectual Property Policies, incorporated by reference in employment agreements, will clarify who owns copyright in what material. Under most of these policies the academic is allowed to retain copyright in their lecture notes and publications although software code and data sets are sometimes owned by the university. Materials generated for courses, under the general principle that copyright material generated in the course of employment is owned by the employer, will normally be owned by the university, with academics given some rights of user. The merging of lecture notes and course materials in online learning environments has caused some blurring of the traditional lines of copyright ownership and therefore people need to take care to clarify ownership to these materials before applying a Creative Commons license. As well increasing collaboration between institutions in the development of online materials creates another series of questions about rights ownership. Ultimately institutions need to clarify their commitment to open education and put in place policies that implement their plans. It is extremely important that academics have the certainty to engage in open and collaborative innovation through the sharing of educational resources if and when they wish.

Moral rights issues will also need to be considered. As explained above CC licenses outside of the US and Canada operate in a manner that accommodates moral rights. In re-using educational resources people will need to be mindful of the moral rights obligations that CC licenses confirm – namely that of attribution and preserving the integrity of the copyright material. Downstream users need to be mindful of how far these obligations reach. For example in Australian law these obligations are set in a context of reasonableness.

In licensing out material under a Creative Commons license, for instance an academic article, electronic thesis or course material people need to be careful not to include third party owned copyright items that they have no authority to license. If you have third party owned materials embedded in work you have generated you will need to obtain the permission of the third party owner to license them out with your material under a CC license unless they do not amount to a substantial part or you can rely on some law such

⁵⁵ <http://lists.ibiblio.org/pipermail/cc-education/2005-April/000245.html>

⁵⁶ S. Downes, "Supporting Social Learning Around Collections of Open Educational Content: Open Learning Support", <http://www.downes.ca/cgi-bin/page.cgi?post=22>

as fair dealing or fair use or some other form of permission. A substantial part is usually determined by quality and not quantity, meaning a very small quote if it is the essence of a work may amount to a substantial part. General guidelines, which cannot be absolute rules because of the contingent nature of what is a substantial part, suggest that quotes of 200-300 words from an article or book are not substantial. Fair dealing and fair use exceptions allow for the reproduction and communication of third party content for certain purposes and this needs to be assessed in each jurisdiction. When in doubt, a clear permission covering the online dissemination under a CC license should be obtained from the third party owner.

Another point of difficulty is determining whether re-use in education will be classed as commercial or non commercial under the CC non commercial condition as increasingly education providers are required to engage in revenue generating activities. New guidelines being promulgated by CC explain that use of material by a not for profit entity (university, school) for the purposes of education will not be commercial use.⁵⁷ Based on these draft Non Commercial Guidelines, use of material licensed under a Creative Commons Non-commercial license by a not-for-profit educational institution would be permitted for:

- classroom use;
- use in research or school projects; and
- use in course materials, including materials for “paid” courses.

The material could not, however, be used:

- by a “for profit” school or university.

The AESShareNet Free for Education (FfE) license does not discriminate between profit and not-for-profit educational organisations providing that:

You may use and copy any material covered by an AESShareNet-FfE license, for educational purposes only.

The term “use” means read, view, play, perform, operate and/or execute the material (depending on its nature and format).

The term “education” means a structured program of learning and/or teaching for the benefit of a learner.

If you are an education provider or other organisation you may use the material within or for the services of your organisation. You make and give copies to learners, including by emailing them and/or by uploading them to an intranet within your organisation. You may charge for the education provided. You may also charge learners separately for the material on a cost-recovery basis only.

If you are an individual learner you may use the material personally for your education, such as including it (with proper attribution) in work that you do in the course of that education.

⁵⁷ http://wiki.creativecommons.org/NonCommercial_Guidelines, See also “Non Commercial Guidelines”, <http://lists.ibiblio.org/pipermail/cc-licenses/attachments/20060110/02d7a271/NonCommercialGuidelinesclean-0001.pdf>

*There is no limit on the number of copies that can be made. You may copy part or all of the material.*⁵⁸

It should be noted however that under the FfE license: “You may not develop an enhanced version of the material. (An ‘enhanced’ version involves blending of substantial new material with the original material so as to give rise to a new layer of copyright.)”

The non commercial condition has been criticised by some commentators as being too vague, restrictive and/or incompatible with established licenses like the GFDL. While some of this criticism is justified, there is no doubt that the non commercial condition can be easily applied and understood in many instances and will play a significant role in the OER framework. That said, as people learn more about the open content licensing framework it is predicted that the non commercial condition will be used less.

Commentators have also criticised CC licenses because they are perpetual and irrevocable, meaning that once you license your material you cannot change your mind; it is licensed forever. While this is correct, as a practical measure you can always take the material off the web or refuse to distribute any more copies; however, any person who has access to a version that is already circulating is entitled to use it in accordance with the license. There has been talk about introducing a revocable CC license although the administration of such a license would be challenging, though perhaps not impossible. Some people have used the non commercial and/or the share alike condition as insurance against any potential negative impact of the irrevocability of the license, thereby reserving the right to deal with commercial exploitation under a separate license and/or requiring others to share their innovations. The key point to make is that if you are going to license under a CC license you need to be mindful that the license is irrevocable and as to how this will impact upon your present and future objectives.

Open access repositories⁵⁹

The world wide development of open access repositories by universities, research institutes and academic disciplines has seen widespread sharing of journal articles and electronic theses. Disillusioned by the increasing costs of journal subscriptions and motivated by the great potential the Internet offered for disseminating knowledge, researchers and their institutions and disciplines have combined to provide greater access to materials. In some institutions such as QUT in Australia, depositing a version of your journal article in the university’s E Print Repository is mandated by the terms of employment.⁶⁰ We have also seen major funders such as the Wellcome Trust in the UK condition research grants on the open access availability of research publications.⁶¹

There are approximately 24 000 peer-reviewed journals in the world today publishing around 2.5 million scholarly and scientific research articles per year in many different languages. Professor Stevan Harnard, a leading figure in the open access movement, explains the benefits of open access in this way:

⁵⁸ www.aesharenet.com.au/FfE2/

⁵⁹ See Open Access to Knowledge (OAK) Law Project at <http://www.oaklaw.qut.edu.au>

⁶⁰ Policy F/1.3 E-print repository for research output at QUT, http://www.mopp.qut.edu.au/F/F_01_03.html

⁶¹ See B. Fitzgerald, A. Fitzgerald, M. Perry, S. Kiel-Chisholm, E. Driscoll, D. Thampallai and J. Coates (2006), “Creating a legal framework for copyright management of open access within the Australian academic and research sector”, www.oaklaw.qut.edu.au

All parties to the research publication and production co-benefit from this supplementary open-access self-archiving: Authors, their institutions, their funders, their publishers, and research itself. The author receives more citations (as well as more downloads: <http://eprints.ecs.soton.ac.uk/10647>). The institution has greater research impact, and its research output is more visible, attracting more researchers, students, and research funding. The research funder (and the tax payer funding the funder) receives greater return on their investment in the research. The journal gains a higher citation impact factor, wider visibility and greater usage per published article. And of course the progress and productivity of researchers and research itself are enhanced.

Yet despite the benefits of self-archiving, researchers have been rather slow to do it, partly because they are not yet aware of those benefits, and partly because they feel they already have enough to do (and are unaware that it takes only 6-10 minutes per article to self-archive it: <http://eprints.ecs.soton.ac.uk/10688>).

Publishers are certainly not at fault for the fact that authors have been so slow to self-archive: ninety-two percent of the 8 450 journals surveyed to date (including most of the top journals) have given their authors the green light to self-archive: <http://romeo.eprints.org>.⁶²

Understanding the rights of downstream users to re-use materials they find in repositories is also important. As explained above clearly articulating these rights, through for example an open content license, could add more certainty to the further use of this knowledge. To this end it has been suggested that we need to ensure that commercial publishing agreements are flexible enough to accommodate such licensing. The delicate balance is to ensure that self-archiving practices continue to improve while at the same time further developing a legal framework that will reinforce the value and impact of such a practice. The good will and understanding of commercial publishers is central to both activities and must be carefully managed.⁶³

Conclusion: copyright more accessible and negotiable

In a digital world where educational users will increasingly engage with a culture of cut and paste, remix, collaboration and instant Internet access, open content licensing will provide a vitally important facility for sharing and reshaping knowledge in the name of culture, education and innovation. While respecting the basic principle of copyright, open content licensing allows a broader understanding of information management in a way which builds on the existing system. There can be little doubt that open content licensing has already become and will continue to be, an important option in the copyright management, distribution and utilisation of educational resources.

⁶² S. Harnad (2005), "On Maximizing Journal Article Access, Usage and Impact", <http://www.haworthpressinc.com/library/StevanHarnad/04212005.asp>

⁶³ See B. Fitzgerald, A. Fitzgerald, M. Perry, S. Kiel-Chisholm, E. Driscoll, D. Thampallai and J. Coates (2006), "Creating a legal framework for copyright management of open access within the Australian academic and research sector", www.oaklaw.qut.edu.au

Further reading

www.creativecommons.org

<http://www.law.qut.edu.au/about/staff/lstaff/fitzgerald.jsp>

Fitzgerald, B. and G. Bassett (2003) (eds.), *Legal Issues Relating to Free and Open Source Software*.

Fitzgerald, B. and N. Suzor (2005), “Legal Issues For the Use of Free and Open Source Software in Government”, 29 Melbourne University Law Review 412, eprints.qut.edu.au.

Fitzgerald, B., A. Fitzgerald, M. Perry, S. Kiel-Chisholm, E. Driscoll, D. Thampapillai and J. Coates (2006), “Creating a Legal Framework for Copyright Management of Open Access within the Australian Academic and Research Sector”, www.oaklaw.qut.edu.au

Intrallect Ltd (E. Barker, C. Duncan) and AHRC Research Centre (A. Guadamuz, J. Hatcher and C. Waelde) (2005), Final Report to the Common Information Environment Members of a study on the applicability of Creative Commons Licenses, Ch 3.6, <http://www.intrallect.com/cie-study/>

Lessig, L. (2004), “Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity”.

Appendix

Free and open source software

Extracted from B. Fitzgerald and Nic Suzor (2005)

“Legal Issues for the Use of Free and Open Source Software in Government”

29 *Melbourne University Law Review* 412

eprints.qut.edu.au

A grass roots movement started by free software guru Richard Stallman in the 1980s has revolutionised the way we think about software development and distribution. Stallman was frustrated with the fact that he could not access the source code (the human readable code) of software that was controlling a Xerox printer in his lab at MIT. His quest for opening up access to source code in software has led to the creation of a powerful form of collaboration known as the free software movement.

Free software is not free because it has no price; it is free because it contains values that enhance liberty for users and programmers. Stallman is quick to point out that “free software does not mean that the software is free, as in requiring no payment. When I speak of free software, I’m referring to freedom, not price. So think of free speech, not free beer.”⁶⁴ Stallman applies four strict criteria to maintain free values in software:

- The freedom to run the programme, for any purpose (freedom 0).
- The freedom to study how the programme works, and adapt it to your needs (freedom 1). Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbour (freedom 2).
- The freedom to improve the programme, and release your improvements to the public, so that the whole community benefits (freedom 3). Access to the source code is a precondition for this.⁶⁵

Free software is distributed with the source code disclosed or open at the point of distribution. Non-free or proprietary software is distributed with no source code disclosed, requiring anyone who wishes to discover that source code to engage in a process of reverse engineering by decompiling the machine code into source code. The fear that attaches to distributing the source code with software is that a recipient may use it to their advantage and profit without giving back to the community, free-riding on the community based developments. In order to remedy the most extreme examples of this

⁶⁴ Richard M. Stallman, “Free Software: Freedom and Cooperation”, Speech at New York University, New York, 29 May 2001, <http://www.gnu.org/events/rms-nyu-2001-transcript.txt> (27 August 2001). On the power of free software models to enhance digital diversity consider: B. Fitzgerald (2001), “Intellectual Property Rights in Digital Architecture (including Software): The Question of Digital Diversity?”, EIPR 121; B. Fitzgerald (2000), “Software as Discourse: The Power of Intellectual Property in Digital Architecture”, 18 *Cardozo Journal of Arts and Entertainment Law Journal* 337.

⁶⁵ “The Free Software Definition”, Updated 27 October 2001, <http://www.fsf.org/philosophy/free-sw.html> (23 July 2002).

Stallman ensured that the source code he distributed was covered by a lawfully binding obligation created through the GNU General Public License (GPL).⁶⁶ The GPL provides that if you take free software code and create and distribute a new work based on the code, you are obliged to disclose your code to the people you are distributing to, which in essence means the whole community. In this way the GPL leverages upon the copyright in software code owned by the person licensing out the code to oblige the recipient to share improvements with the community for everyone's benefit.

This was Stallman's powerful insight: copyright in software code can be used not only to close access and exploit its benefits for monetary reward but can also be claimed at the source to structure open access down-stream. Software source code that was released free to access would remain free to access, and any improvements would also be free to access.⁶⁷

Today, nearly every government in the world wants to know more about free software and how the model works, and the private sector is not far behind. Some governments have already begun the task of migrating to the use of free software in the public sector. The free GNU/Linux operating system now rivals the dominance of Microsoft Windows in controlling how our computers and networks run, at least at an institutional level.⁶⁸ The Australian Government Information Management Office's (AGIMO) recognises that the use of open source software is "particularly widespread in areas such as network infrastructure, single-purpose computer servers, security, Internet and intranet applications and network communications" in both the private and public sectors.⁶⁹

Copyleft and Non Copyleft Licenses: There are two main types of free and open source software licenses. The simpler licenses, for example the revised⁷⁰ BSD and MIT/X11 licenses, allow redistribution and use in source and binary forms, with or without modification, on the condition that the copyright notice is retained and that any applicable warranties are disclaimed. There is no requirement that derivatives of the free software be free themselves. On the other hand, the copyleft licenses, like the GNU General Public License (GPL), attempt to create a contributory commons by requiring that any re-distribution of the software or its derivatives is released under the free license.⁷¹

Free Software v Open Source: The Open Source Initiative (OSI) is a non-profit organisation. Its leading proponent, Eric Raymond, has conceptualised business models

⁶⁶ "The General Public License (GPL)", Version 2, June 1991, <http://www.opensource.org/licenses/gpl-license.html> at 19 August 2001.

⁶⁷ For a detailed overview of and motivations for peer and user led production, of which free software is a prime example, see Y. Benkler (2002), "Coase's Penguin, or, Linux and The Nature of the Firm", 112 Yale LJ 369; J. Lerner and J. Tirole (2002), "Some Simple Economics of Open Source", 50 J. Indus. Econ. 197; E. von Hippel (2001), "Innovation by User Communities: Learning from Open Source Software", 42 Sloan Mgmt Rev 82.

⁶⁸ For example, Netcraft, a respected long-term Internet research and analysis organisation, in their most recent survey suggest that over 69% of all active websites use the free Apache webserver (Netcraft, June 2005 Web Server Survey, http://news.netcraft.com/archives/2005/06/01/june_2005_web_server_survey.html).

⁶⁹ AGIMO (2005), "A Guide to Open Source Software", p. 10.

⁷⁰ The original BSD license had what came to be known as an "obnoxious advertising clause", which required attribution to be displayed on all advertising materials. This caused a problem when there were many contributors to a project, because the attribution material quickly became large and unwieldy. Current versions of this license do not include the clause, but there are still many examples of software products released under the original license or modified versions of the original license.

⁷¹ See Lawrence Rosen (2004), "Open Source Licensing: Software Freedom and Intellectual Property Law", Prentice Hall.

enabling commercial exploitation of open source programmes.⁷² Programmes distributed with the Open Source Certified trademark (OSI Certified)⁷³ are published on an approved list of licenses⁷⁴ that conform to the open source definition.⁷⁵

The difference between open source and free software is mainly a philosophical one. Because the definition of “open source” is somewhat broader than the definition of “free software”, it is clear that all free software is open source, but not all open source software is free. In practice, however, most licenses that satisfy the OSI definition will also be considered “free”.

The OSI was initially formed by a small group of people, including Bruce Perens and Eric Raymond, in order to promote commercial uptake of free software, from fear that the term “free” would otherwise discourage that process. Accordingly, the definition of open source was taken from the definition of free software,⁷⁶ but the emphasis was placed away from freedom and towards the development benefits of using an open source methodology. After a year, Bruce Perens resigned from the board of OSI, regretting that “open source has de-emphasised the importance of the freedoms involved in Free Software”.⁷⁷ The FSF has noted that the changed focus of “open source” software encourages commercial developers to “gain the favourable cachet of ‘open source’ for their proprietary software products – even though those are not ‘open source software’ – because they have some relationship to free software or because the same company also maintains some free software”,⁷⁸ as well as to reap the benefits of the open source

⁷² These include loss leader; widget frosting; give away recipe/open restaurant; accessorising; free the future, sell the present; free the software, sell the brand; free the software, sell the content: Eric Raymond, *The Cathedral and the Bazaar*, <http://www.catb.org/~esr/writings/cathedral-bazaar>; Shane W. Potter (2000), “Opening Up to Open Source”, 6 Rich. J.L. &Tech 24; M. Fink (2002), *The Business and Economics of Linux and Open Source*, Prentice Hall PTR.

⁷³ Open Source.Org, Revised 30 April 2001, http://www.opensource.org/docs/certification_mark.html (24 November 2001).

⁷⁴ Open Source.Org, <http://www.opensource.org/licenses/index.html> (24 November 2001).

⁷⁵ Open Source.Org, Version 1.9, <http://www.opensource.org/docs/definition.html> (20 July 2002).

⁷⁶ The initial OSI definition of “open source” was identical to the “Debian Free Software Guidelines”, http://www.debian.org/social_contract.html#guidelines, at 22 June 2004.

⁷⁷ Email from Bruce Perens to debian-devel@lists.debian.org, “It’s Time to Talk About Free Software Again”, 17 February 1999, <http://lists.debian.org/debian-devel/1999/02/msg01641.html>.

⁷⁸ GNU Project, “Why ‘Free Software’ is better than ‘Open Source’”, <http://www.gnu.org/philosophy/free-software-for-freedom.html> (13 November 2001).

development methodology without granting back to the users the benefits of free software.

In an effort to be all encompassing in discussion of this area of activity while respecting the nuances of the ideological differences it has become fashionable to use the term Free and Open Source Software (FOSS) or Free/Libre and Open Source Software (FLOSS).

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Brian is a well-known intellectual property and information technology lawyer. He has published articles on Law and the Internet in Australia, the United States, Europe, Nepal, India, Canada and Japan and his latest (co-authored) books are *Cyberlaw: Cases and Materials on the Internet*, *Digital Intellectual Property and E Commerce* (2002); *Jurisdiction and the Internet* (2004); *Intellectual Property in Principle* (2004). Over the past five years Brian has delivered seminars on information technology and intellectual property law in Australia, Canada, New Zealand, the United States, Nepal, India, Japan, Malaysia, Singapore, Norway and the Netherlands. In October 1999 Brian delivered the Seventh Annual Tenzer Lecture – Software as Discourse: The Power of Intellectual Property in Digital Architecture – at Cardozo Law School in New York. Through the first half of 2001 Brian was a Visiting Professor at Santa Clara University Law School in Silicon Valley in the United States. In January 2003 Brian delivered lectures in India and Nepal and in February 2003 was invited as part of a distinguished panel of three to debate the Theoretical Underpinning of Intellectual Property Law at University of Western Ontario in London, Canada. During 2005 Brian has presented talks in Germany, India and China and was a Visiting Professor in the Oxford University Internet Institute's Summer Doctoral Programme in Beijing in July 2005. He is also a Chief Investigator of the ARC Centre of Excellence on Creative Industries and Innovation (CCI). He is also Project Leader for the DEST funded Open Access to Knowledge Law Project – OAK Law Project, looking at legal protocols for open access to the Australian research sector. His current projects include work on digital copyright issues across the areas of Open Content Licensing and the Creative Commons, Free and Open Source Software, Fan Based Production of Computer Games, Licensing of Digital Entertainment and Anti-Circumvention Law. Brian is a Project Leader for Creative Commons in Australia. From 1998-2002 Brian was Head of the School of Law and Justice at Southern Cross University in New South Wales, Australia and in January 2002 was appointed as Head of the School of Law at QUT in Brisbane, Australia.