

Creative Commons: challenges and solutions for researchers; a publisher's perspective of copyright in an open access environment

Copyright in the digital environment is evolving at an unprecedented rate. Copyright exists to protect the rights of an owner of an original piece of work by imposing restrictions on re-use but it does not always fit well with how we use and share information in the digital sphere.

The growth of open access (OA) publishing has also added to the challenge as the right to reuse as well as read content has been emphasized.

Creative Commons (CC) licences were introduced to try and bridge the gaps between the barriers imposed by traditional copyright and the realities of the digital environment but, as they are general licences, it is not always clear how they apply to specific situations.

This article addresses some of the key questions around how the various licences can be applied in academic publishing, what some of the consequences are, and how they affect different research areas.

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Introduction

First the disclaimer: I am not legally trained. My interest in copyright issues and Creative Commons (CC) is from the perspective of a publisher (specifically a science publisher). In my role as Editorial Director of IOP Publishing, I have to understand the implications of copyright and Creative Commons in terms of what it means to the company I work for and to the researchers who publish with us. I am fortunate to work with talented people who understand the legal code and who help guide our policies in this area.

It has become clear in the past year that researchers are crying out for more information on what the widespread use of CC licences and open access (OA) publishing will mean for their work.

This is particularly pertinent now because the Research Councils UK (RCUK) open access policy¹ states that paid-for OA articles have to be published under a Creative Commons Attribution licence (CC BY). This licence is also favoured by the Wellcome Trust.

Although using CC licences for journals is not new – publishers like BioMed Central have used these for over a decade – there is more than one type of licence and each licence outlines specific rights for re-use.

Amongst researchers, the potential implications for widespread use of the CC BY licence are causes for concern and I will look at some of the reasons in more detail here.



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Open access and Creative Commons

The definition of open access has changed over the years from 'free to read' to 'free to read and reuse', the origins of which can be traced back to the publication of the Budapest Open Access Initiative (BOAI) in 2002². However, over the past decade, the growth of social media (e.g. Twitter) and the ease of sharing information online has had an enormous impact on the concept of re-use. The need to give guidance to users of content has become critical and this is where CC licences have come into their own.

Creative Commons is a not-for-profit organization which set out to enable sharing and use of creativity and knowledge through free legal tools. CC licences are intended to work worldwide and within existing boundaries of copyright law; they do not replace copyright. The licences set out the re-use conditions for someone making use of another's material. It is important to note that copyright does not apply to data or facts; it applies to the written expression of the article, not the underlying ideas.

"CC licences are intended to work worldwide and within existing boundaries of copyright law; they do not replace copyright."

The licences themselves are made up of three layers: the common deeds or human readable code which sets out simplified terms of re-use, the machine-readable code which standardizes the format for inclusion of the licence or citation in metadata, and underpinning this is the actual legal code. The licence terms are summarized in Table 1 and full explanations can be found on the Creative Commons website³.

CC BY Creative Commons Attribution		Others can distribute, remix, tweak, build on and use commercially provided the original work is cited
CC BY-SA Creative Commons Attribution – Share Alike		Others can do all of the above provided the derivative is published under the same terms as this original licence
CC BY-NC Creative Commons Attribution – Non-Commercial		Others can distribute, remix, tweak and build on provided the original work is cited but commercial re-use is prohibited
CC BY-ND Creative Commons Attribution – Non-Derivative		Others can distribute this work provided the original is not changed in any way and is cited. Commercial re-use is permitted
CC BY-NC-SA Creative Commons Attribution – Non-Commercial – Share Alike		Others can distribute, tweak, build upon and use for non-commercial purposes only and provided the original work is cited and the new work is licensed with the same conditions
CC BY-NC-ND Creative Commons Attribution – Non-Commercial – Non-Derivative		Others can distribute this work provided the original is not changed in any way and is cited. Commercial re-use is not permitted

Adapted from the Creative Commons website (<http://creativecommons.org/licenses/>)

Table 1. Summary of Creative Commons licence types with the associate logos

The clear benefits of CC licences are their ease of use and their provision of clarity on what the user can and cannot do with a piece of material. There is a standard format for identifying the citation and the licence itself in the metadata. Creative Commons also brings licensing of copyright material closer to being internationally applicable, although there are still important geographical differences.

CC BY

Under this licence you are free to share material, to remix and even use it for commercial purposes provided you attribute the work in the manner that is specified by the author, or the licensor, and it does not suggest that they endorse you or your use of that work.

But what does CC BY mean for the researcher? How is this applied within academic publishing? And does it work across all fields?

Most scientists expect others to build on their existing research, believe that sharing is critical to discovery and that CC BY should enhance this status quo. This was certainly a common view expressed by the physicists we talked to. However, there are concerns about how an author's work could potentially be reused out of context and what the recourse would be if they disagreed with such re-use. Plagiarism is another worry, as is the effect on patent applications (which, incidentally, CC licences do not affect).

Researchers are also concerned about who could and should police their rights (traditionally a role of the publisher), particularly once you get into third and fourth generation derivatives of an original work. Who will monitor the use of forward links or check that the licence is being adhered to? There is also confusion with regard to copyright and 'rights'; what rights do researchers keep and what means do they have to defend them? And what happens if you use a copyright image published under a more rigorous licence in a CC BY-licensed article?

Physicists are not alone in these concerns; in a recent open letter, the Institute of Historical Research⁴ raised its concerns over commercial re-use, plagiarism, and exactly how the author will be credited. In a recent blog⁵, David Crotty discusses whether the public good of wide re-use licences outweighs some of the implications for authors' rights.

In the arts, humanities and the social sciences, concern appears to have coalesced around loss of control of work, particularly when it comes to translations and how you control work being used out of context, e.g. in inappropriate anthologies.

I hope that my examination of some of these issues below can go some way to addressing researcher concerns.

How do I stop content being used inappropriately without my permission? The ability to reuse content is a fundamental right granted by the CC BY licence, so someone does not have to seek your permission. They should cite your original work but not in a way that suggests you endorse the new work.

This in theory should give protection against your work being used to advertise or endorse anything without your permission.

It is recommended that a citation to the original article be included in the metadata of the new work so again in theory, it is possible to link the two works. It is also required that modifications to the original work be identified but no standard method for achieving this has emerged in practice.

What can I do if I object to the way my work has been used? If the objection is based on a scientific argument, there are the traditional routes of using 'Comments' or 'Letters to the Editor' as a rebuff. However, this option will not always be available. Another option is to write a follow-up article that discusses the errors or misrepresentations in the derivative work but this is not a fail-safe recourse as you cannot guarantee publication.

A further option is to defend your 'moral rights'. Moral rights give authors the ability to protect the artistic integrity of their work and have been decreed as the way to defend your work against inappropriate use. They bestow the right to object to false attribution and not to have the work subjected to derogatory treatment. They also give the right for you to be acknowledged as the author and creator of the work, although this last right is only available if it is asserted.

171 One of the new challenges presented by the open access environment will be establishing a process by which the publisher or the author can successfully promote and defend attribution rights in a work published under a CC BY licence.

Does the CC BY licence make plagiarism easier? The CC BY licence itself does not make it easier for someone to plagiarise your work as the licence requires proper attribution and an acknowledgement that the work is a derivative of someone else's.

However, some journals have strict rules about the re-use of prose from one article to the next to the extent that an author cannot reuse a paragraph he/she has already written and published in a previous article. In this context, CC BY does throw up some challenges and these are more pronounced in areas such as humanities and social sciences⁶.

"The CC BY licence itself does not make it easier for someone to plagiarise your work ..."

Of course, being able to search across more content could make detection of plagiarism easier!

How do I deal with third-party permissions? Third-party permissions, i.e. getting consent to use the work of a third party in your own original work, constitute a potentially very difficult area that has been particularly vocalised in the arts and humanities, but which does impact other disciplines. For example, we had a case where an author wanted to use a picture by Kandinsky in their article. The image was protected by copyright and specific terms and conditions for re-use imposed by the licensor which would not have allowed the image to be published under a CC BY licence.

Whilst technically it is possible to manage content made available under multiple licences within an article, our experience in this area has shown us that most users view an article as a single unit. The risk is that if a breach inadvertently occurs, the owner could sue and be awarded damages.

Another angle to consider, if you are working in an international collaboration, is whether your co-authors are able to publish under a CC BY licence. Whilst the onus is on the corresponding authors to establish whether his/her collaborators can use this licence, understandably, authors are concerned about what happens if they do meet with restrictions. For example, if there are multiple funding agencies involved with different mandates, which one takes precedence?

Author preference? I have focused on CC BY as this is the licence preferred by many funding agencies. But which licence do authors prefer? This is still up for debate. A number of journals have been using CC BY with no problems for many years. However, Taylor & Francis recently surveyed approximately 77,000 of their authors from which a sub-set of about 14,000 responses showed that the least preferred creative commons licence is CC BY (the most popular being CC BY-NC-ND)⁷. In *Nature News*, Richard Van Noorden discusses data released by Nature Publishing Group which showed similar reluctance by authors to adopt a CC BY licence when given the choice⁸.

The reasons around this could be as simple as it being a natural reaction to say no if you are being asked to give up your rights, but these results do need deeper analysis and may vary across different disciplines.

Conclusions

There has been a lot of discussion around how copyright restricts use and there is certainly some truth in the idea that it is more beneficial to publish research under a licence that allows the widest re-use possible.

At IOP Publishing, we decided to adopt CC BY because it was felt that the opportunities created outweighed any potential negative effects. We do accept, though, that there are risks to be managed and will continue to monitor developments and refine our policies accordingly. However, for other research areas, it may be that the opportunities are outweighed by the risks and the 'one size fits all' approach may not be appropriate.

172 Whilst some communities see re-use of work as standard practice and open access could enhance this, there is concern that there could be unintended consequences of CC BY and that, overall, authors need to know more about the implications of the licences.

The Creative Commons website has very clear explanations on the different terms and conditions of each licence, but more specific information for what it means for academic publishing would be welcomed. We have recently produced an introductory guide to copyright and licensing⁹ following requests from our UK authors.

“... author choice may be taken out of the equation.”

There are clearly key questions that authors need to ask before committing to this licence, some of which I have laid out in this article and others in the presentation that this article is based on¹⁰. However, what does seem certain is that with more funder mandates requiring CC BY, author choice may be taken out of the equation.

How some of the licence terms and conditions can be enforced has yet to be tested and there are still many areas where it is far from certain the licence will be practical. Industry initiatives such as the CrossMark¹¹ project may help solve the problems of version control and linking, as ideally it will allow users to check if there are changes to an article, or if other versions of the article are available.

Clearly, as we redefine the publishing landscape and our expectations of what we should have access to, other areas of long-term practice such as copyright will also be redefined in the process.

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