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OPEN KNOWLEDGE

The Route to an Open Scholarly Ecosystem Runs through CC BY

Some publishers have sought to leverage more restrictive licenses to gain commercial control of open access works. Soft mandates for the CC BY license could help.

By Michael Rodriguez | 07.02.2025

Note from the author: This article was published under a Creative Commons Attribution (CC BY) license by special request from the author, following a thoughtful dialogue with the editors and Richard Gallagher, president and editor-in-chief of Annual Reviews, which publishes Katina. I appreciate the irony of publishing a piece supporting CC BY in

a magazine that utilizes the more restrictive CC BY-NC license—but I believe that Katina is the best venue to lift up these ideas, and I trust the publisher and editors to consider carefully the benefits of CC BY over more restrictive licenses.

Creative Commons (CC) licenses are foundational to open scholarship because they set more or less standardized conditions for permissible reuse of articles and other intellectual works. Such conditions range from zero restrictions to simply giving credit to the creators to sharply limiting users' freedom to share or adapt certain works. Reuse is essential to advancing innovative and equitable scholarly communication, enabling knowledge to be more widely shared, translated, and built on. To facilitate these goals, many publishers offer permissive licenses to authors, but some co-opt essential author rights or offer authors a baffling smorgasbord of license options.

With more than 50 percent of articles now open access (OA) globally, some publishers seek to leverage more restrictive licenses to gain commercial control of OA works. To decommmercialize open scholarship, higher education institutions (HEIs), library consortia, and other research funders can respond in a range of ways. Mandates for the permissive CC BY license, enacted in conversation with authors and publishers, offer one mechanism. While hard mandates require authors to publish under CC BY only, soft mandates default to CC BY but offer a streamlined process for authors to seek exceptions, amplifying both open access and authors' rights.

Understanding Creative Commons Licenses

Creative Commons is a global nonprofit organization that administers the "CC licenses and public domain tools that give every person and organization in the world a free, simple, and standardized way to grant copyright permissions for creative and academic works; ensure proper attribution; and enable others to copy, distribute, and make use of those works" (Creative Commons, n.d.). CC supports six different license types, all of which require attribution (that is, CC BY) and which are listed below from most to least permissive:

1. CC0 dedicates the work to the public domain, with the creators waiving their copyright.
2. CC BY enables the work to be shared and adapted freely as long as creators are credited.
3. CC BY-SA requires adaptations to be shared under the same terms (ShareAlike).

4. CC BY-NC prohibits commercial use of the work (NonCommercial).
5. CC BY-NC-SA combines the three preceding licenses.
6. CC BY-ND prohibits sharing derivatives or adaptations of the work (NoDerivatives).
7. CC BY-NC-ND combines the Attribution-NonCommercial-NoDerivatives licenses.

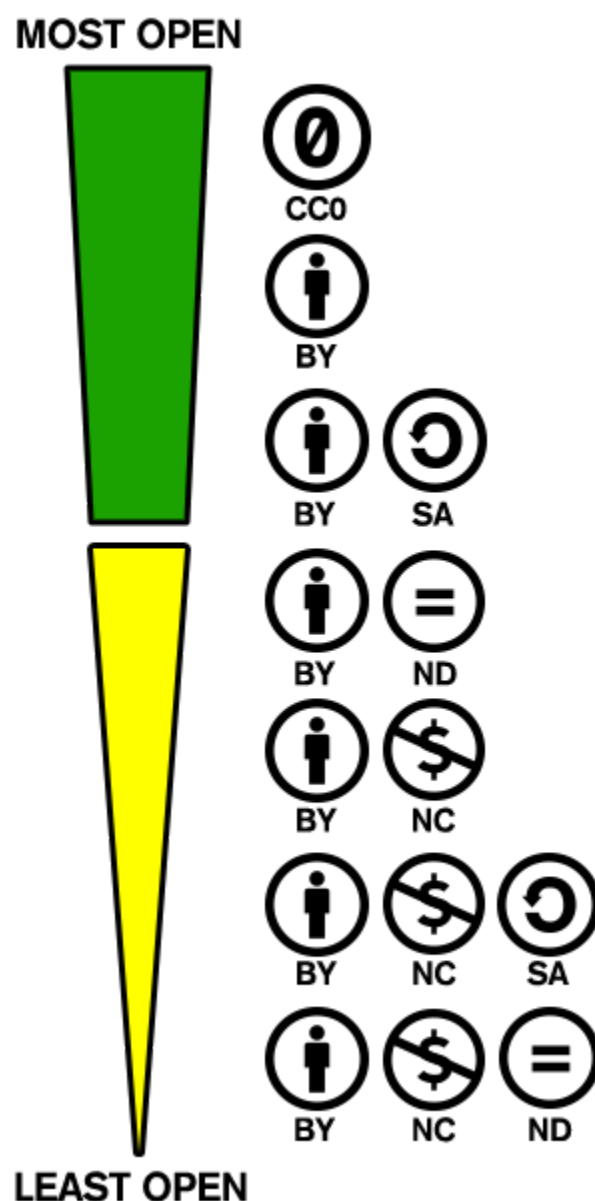


FIGURE 1: Ordering of Creative Commons licenses from most to least permissive (July 1, 2013), licensed under CC BY-SA 4.0

Apart from CC0 (rarely used for research articles but often for research data), CC BY is the most open of these CC licenses and enables the broadest sharing and reuse, which benefits both the researchers and scholarly communication as a whole. Open Access 2020 Initiative coordinator Colleen Campbell told me that “by adopting a CC BY license

2020 initiative coordinator Celine Campbell told me that “by adopting a CC BY license, authors not only ensure that research remains a public good but also contribute to a globally accessible, robust corpus of knowledge” (personal communication, April 24, 2025). The How Equitable Is It? assessment tool requires CC BY for a scholarly communication model to be considered “Most Equitable.”

While the majority of publishers offer CC BY to authors of open access articles, many also offer more restrictive CC BY-NC and CC BY-NC-ND licenses. Some publishers do not offer CC BY at all. CC BY-SA is least popular as it requires users to license derivative works under the same terms, restricting downstream reuse if reusers are for some reason unable to apply the same license.

A note on scope: While I focus below on CC BY mandates in the context of article processing charges (APCs) and read-and-publish agreements, CC BY should apply to all articles regardless of funding model. OA book licensing has more nuances and merits separate consideration.

Concerns about CC BY Mandates

When authors select more restrictive CC licenses, publishers may be able to retain commercial control over the work, giving them the power to approve and reject certain uses and charge fees to third parties for commercial and derivative uses such as translations.

But CC BY is not the one and only solution to extended commercialization by publishers. John Holmwood argues that permissiveness in licenses can actually advance the commercialization of knowledge, serving the neoliberal agenda to dismantle public institutions like universities and privatize their functions. Even open access champions such as Martin Paul Eve have expressed concerns about third parties reprinting and selling CC BY-licensed books, while Danny Kingsley notes concerns about the limited protections that all CC licenses afford to the “moral right for integrity of the research.” For-profit aggregators may host and distribute OA articles without profit-sharing. This Authors Alliance interview between Dave Hansen and Charles Watkinson explores some of these tensions between OA and commercialization.

That said, the research community is increasingly comfortable with CC BY, even in the arts and humanities. According to a 2025 OASPA and Delta Think analysis, as of 2023,

CC BY licenses covered some 82 percent of articles in fully OA journals and over two-thirds of hybrid OA output, up from just half of these outputs in 2019. Many reputable publishers, including the [Royal Society](#), are using CC BY licenses only. *Anglo-Saxon England*, a long-established history and humanities journal (relaunched in 2024 as [Early Medieval England and its Neighbours](#)), has moved to fully open access and still going strong, with 11 of 12 articles in the 2025 volume published as CC BY despite other CC license options being available to authors. Humanists increasingly agree with Eve, who wrote to me in an email, “My return from writing is not financial, but a form of social capital that contributes to my academic reputation. This is only enhanced by a broader readership and more outlets” (personal communication, April 23, 2025).

Some authors might understandably be concerned about a “mandate” that dictates how they can publish their work. But CC BY mandates impinge on author choice far less than traditional publishing, which for decades has almost universally required authors to transfer copyright. It is not a novel concept for authors to have to meet criteria to publish in certain venues or receive certain funding. Soft CC BY mandates don’t prevent authors from taking their work elsewhere or requesting an exception. What’s more, certain publishers are already nudging authors toward more restrictive licenses via system design, making situations in which “the author isn’t controlling the workflow, the workflow is controlling the author” (Schneider & Schalken, 2023).

Authors may also be concerned that a CC BY license leaves their work open to commercial exploitation, including use in training artificial intelligence (AI). But many open access articles are not commercially exploitable at an individual level, which is what most authors care about. Processes and ideas are not copyrightable, patents still apply under CC BY, and authors can publish charts and images under more restrictive licenses if they so desire. Using CC BY-NC to reserve commercial rights often merely protects the form rather than the function or content.

Furthermore, shifting to more restrictive CC licenses in an attempt to curtail use with AI may be a premature overcorrection because of the rapidly evolving and complex AI landscape. Creative Commons has just announced its [“CC signals” project](#) to establish a framework separate from CC licenses for authors to [signal preferences for AI training](#). [A U.S. court has ruled](#) that use of lawfully acquired content to train AI is quintessential fair use under U.S. copyright law, permissible even if the materials in question are never released under a CC license.

Publisher Constraints on CC BY Adoption

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As noted above, some publishers actively steer authors toward more restrictive CC licenses when authors opt to publish OA. In one troubling example, the American Chemical Society (ACS) discounts its article processing charges (APCs) by \$500 when authors select the most restrictive license option of CC BY-NC-ND. In another much-criticized move, ACS goes so far as to incentivize authors to opt for a 12-month embargo period, regardless of their articles' OA status or license selection.

Many publishers steer author decisions in more subtle ways. The most common way is through system design. Once an author opts to publish OA, a publisher's article submission system may confront the author with a list of CC license options that provides little explanation beyond links to the CC website. Or authors may face a build-your-own-license workflow, having to decide whether to "Allow Remixing" or "Require Share-Alike." Authors are often unfamiliar with the ins and outs of CC licenses, and it is unrealistic to expect busy scholars and scientists to spend their limited and valuable time weighing and scrutinizing all angles before selecting a license. If unfamiliar with CC licenses' nuances, authors often opt to exercise what they see as prudence by picking a more restrictive license, unintentionally eroding their own copyright protections.

Phrasing of publisher guidance matters too. For example, in its author-facing Rights and Access Form, Elsevier states that the CC BY option constitutes "a license to permit readers to share and adapt your article for any purpose, **even** commercially" (emphasis added). This phrase echoes the language used by Creative Commons, but the effect of this intensive adverb in this context may be to nudge authors into thinking that selecting a CC BY license is a bold and risky choice.

Publisher Efforts to Obtain Commercial Control of OA Works

In addition to nudging authors toward more restrictive licenses, some publishers interpret CC licenses in an overly narrow manner. Multiple publishers warn authors that posting their own CC BY-NC-licensed works onto scholarly collaboration platforms such as ResearchGate would infringe the license's noncommercial terms. These publishers suggest that websites run as a business, merely by hosting and providing access to open access works, are exploiting the works primarily for commercial gain, regardless of the original uploader's rights or intentions.

The Association for Computing Machinery (ACM) requires authors to post their own CC-licensed works only on “non-commercial repositories” that are “owned by non-profit organizations that do not charge a fee to access deposited articles and that do not sell advertising or otherwise profit from serving scholarly articles.” This requirement does not seem to align with the spirit of Creative Commons guidance, which stresses that whether a user is a charity or a business does not dictate if the use itself is commercial or not. Most importantly, charitable and not-for-profit organizations routinely participate in “commercial” activities (colleges charge tuition, museums advertise for memberships and donations, and so on). And in my experience, users are wary of using CC BY-NC licensed works if there’s any chance that the use could be seen as commercial.

In recent years, Elsevier and other commercial publishers even sought to claim exclusive rights to publish and distribute works licensed under CC BY-NC or CC BY-NC-ND. Elsevier’s claims mean that authors who select these more restrictive licenses may have to seek permission from the publisher to republish their articles in a format like a book that will generate royalties or net sales, share their articles on websites that display ads, incorporate works into course packs, or share them with staff at faculty-led start-up companies. Elsevier continues to claim exclusive commercial rights vis-à-vis third parties, stating, “Authors publishing under the CC BY-NC-ND or CC BY-NC licenses agree not to license any third party to reuse their articles or any part of their articles for commercial purposes. Elsevier has the exclusive right to license third parties to do this.” On their own, authors might readily permit most commercial uses, but in its agreements with authors, Elsevier is granting itself the power to enforce or not enforce commercial rights and to charge what it pleases. This diminishes the power and prerogatives of authors.

As artificial intelligence (AI) ushers in a new wave of commercialization, commercial rights are more important than ever. Authors who give up commercial rights will have little say in how their research is used to train AI; meanwhile, a few publishers are making tens of millions of dollars from licensing deals with big tech companies to train proprietary generative AI tools and models. Few authors will see any of this money. CC BY licenses at least require attribution and version control and proscribe suggestions that the author endorses specific users or uses.

Advancing a Truly Open Ecosystem

Institutions, libraries, and other funders can take a number of steps to (1) shift author choices toward CC BY as the most open and straightforward license and (2) put a stop to even greater commercialization of CC BY-NC and BY-NC-ND licensed works. To start, institutions of all types should educate their researchers about author rights, harnessing resources such as the [CC Certificate Program](#), [SPARC Author Addendum](#), and [cOAlition S Rights Retention Strategy](#).

In the absence of official CC BY mandates, institutions can work with publishers to preselect the CC BY license option in publishers' submission systems and add custom messages to the publisher interface explaining the preferred license's benefits. [People in general tend to go with the default settings](#), but such nudges do not constrain author choice—authors can always pick a different license if they wish. Adjustments like these boosted the [Dutch UKB consortium's CC BY adoption rate](#) from about 50 percent in 2019 to 70 percent three years later (Schalken, 2022).

Higher education institutions and libraries covering the costs of research and publication can also mandate use of CC BY licenses. Governmental and philanthropic funders including the Gates Foundation, the Wellcome Trust, and UK Research and Innovation already mandate CC BY, as do increasing numbers of European HEIs and consortia, commonly under the banner of cOAlition S. To enact a mandate, publishers could automatically present just the one license—CC BY—to authors who are funded via read-and-publish agreements or other organizational funding mechanisms that require them. A simple affiliation match would be all that's needed.

If research administrators are uncomfortable enacting hard license mandates, institutions could encourage authors to publish under a CC BY license by permitting the use of other licenses only by special exception. The burden on authors asking for exceptions would be minimal (such as the simple sending of an email), and institutions could promptly approve without question. As always, authors would have the option to self-fund publication or take their work elsewhere.

Organizations can enact CC BY mandates, whether soft or hard, through their agreements with publishers. In its [2025 read-and-publish agreement](#), for instance, the SURF consortium requires Elsevier to "automatically present CC BY [to Eligible Authors] unless the Eligible Author requests an alternative license." Organizations should also advocate for more author-friendly publication agreements, ensuring that authors retain the right to use all OA articles they publish in any way they want without having to seek permission. Details of the author rights form, which authors fill out during the publication process, should be included in read-and-publish agreements.

CC BY is also important in the context of diamond open access, in which publications are funded via institutional memberships, crowdfunding, and other means rather than APCs. Libraries and funders should engage with diamond OA publishers to understand their rationales for providing more restrictive licenses and to advocate for a shift to CC BY. Institutions may wish to prioritize investing in publishers and journals that require or default to CC BY, balancing this expectation with the recognition that support of diamond OA publishers (many of which are independent, small nonprofits) is essential to decommercializing scholarly communication as a whole.

On the topic of self-archiving author accepted manuscripts (green OA), cOAlition S is pursuing a [Rights Retention Strategy](#). cOAlition S organizations mandate that a CC BY license be applied to all author-accepted manuscripts (or versions of record) reporting original research supported in whole or in part by the organizations' funds, while often allowing authors to request CC BY-ND by exception. Institutions beyond cOAlition S should consider enacting similar mandates.

What Next?

HEIs, libraries, and library consortia should explore and pursue CC BY mandates in dialogue with researchers, members, and publisher partners. Publishers should shift to exclusive use of CC BY licenses when possible, renounce commercial control of scholarly works, and design submission systems that nudge authors to select more open licenses and enable the display of preferred licenses and custom text at the request of institutions and other funders. By leaning into CC BY, we can advance a more open and equitable scholarly communication ecosystem worldwide.

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Michael Rodriguez is a senior strategist for Content & Scholarly Communication Initiatives at Lyrasis. He has served as collections strategist at the University of Connecticut and president of the Association of College and Research Libraries' New England Chapter. Michael has received the Library Journal Reviewer of the Year Award, the NASIG Horizon Award, and the Charleston Conference Up & Comer Award. He has been a member of *Katina's* resource reviews editorial committee since 2024. Learn more at <https://orcid.org/0000-0003-2919-5588>.

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