

OPEN-ACCESS REFORMERS LAUNCH NEXT BOLD PUBLISHING PLAN

The group behind Plan S has already accelerated the open-access movement. Now it is proposing a more radical revolution for science publishing.

By Loyal Liverpool

The group behind the radical open-access initiative Plan S has announced its next big plan to shake up research publishing – and this one could be bolder than the first. It wants all versions of an article and its associated peer-review reports to be published openly from the outset, without authors paying any fees, and for authors, rather than publishers, to decide when and where to first publish their work.

The group of influential funding agencies, called cOAlition S, has over the past five years already caused upheaval in the scholarly publishing world by pressuring more journals to allow immediate open-access publishing. Its new proposal, prepared by a working group of publishing specialists and released on 31 October, puts forward an even broader transformation in the dissemination of research.

It outlines a future “community-based” and “scholar-led” open-research communication system (see go.nature.com/45zyjh) in which publishers are no longer gatekeepers that reject submitted work or determine first publication dates. Instead, authors would decide when and where to publish the initial accounts of their findings, both before and after peer review. Publishers would become service providers, paid to conduct processes such as copy-editing, typesetting and handling manuscript submissions.

“We want this entire system to be in the hands of the research community, or at least controlled by the research community,” says Johan Rooryck, executive director of cOAlition S and a linguist at Leiden University in the Netherlands. The coalition defines scholar-led communication as publishing initiatives in which “all content-related elements”, such as primary-research articles, peer-review

reports, editorial decisions and scientific correspondence, “are controlled by, and responsive to, the scholarly community”.

If the vision comes to pass, it would mark a revolution in science publishing. Each element has already been endorsed and trialled on a small scale. But as a whole, the proposal “is describing a system that is completely different from today’s mainstream forms of scholarly communication”, says Andrea Chiarelli, a consultant at Research Consulting in Nottingham, UK. cOAlition S is launching a six-month process, co-led by Research Consulting, to collect feedback from members of the global research community on whether the plan will meet their needs.

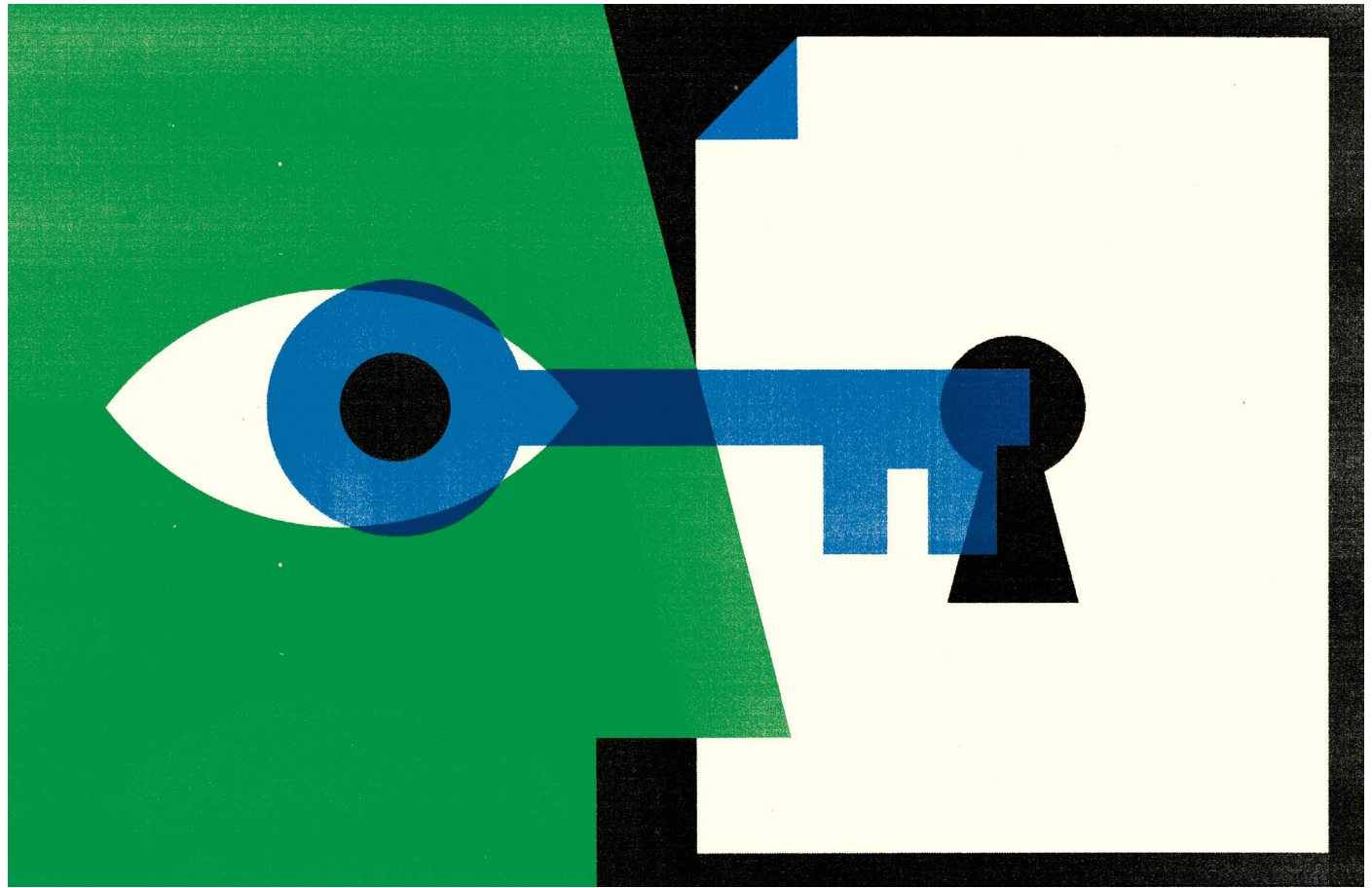
Supporters say the vision is a positive step that builds on other statements, such as a recommendation this year by the European Union council of ministers that member states adopt an open-access, non-profit model for research publishing that does not charge fees to authors. “None of these ideas are new, but what’s new is that an important coalition of funders might unify behind them,” says Peter Suber, senior adviser on open access at Harvard University in Cambridge, Massachusetts, and director of the Harvard Open Access Project.

Commercial publishers that *Nature* contacted had few concrete comments on the proposal, but some emphasized the value and service that they provide to the research community. (*Nature*’s news team is independent of its publisher, Springer Nature.) The proposal’s impact could depend on how far cOAlition S funders want to push researchers to follow the model, says Lynn Kamerlin, a computational biophysicist at the Georgia Institute of Technology in Atlanta. Encouraging academics to publish on platforms such as preprint servers and peer-review and curation services, as the proposal envisages, would be less contentious, she says, because the publishing industry is already moving in that direction. “If they turned around and told their researchers that ‘you are no longer allowed to publish in journals from now on, everything will go on a platform’ – that will be controversial.”

The start of a sea change

The proposal could mark the second phase in a research-publishing revolution that cOAlition S accelerated five years ago. At the outset, the group of funders included several European national funding agencies, which were joined shortly afterward by funding giants Wellcome, based in London, and the Bill & Melinda Gates Foundation in the United States. The open-access publishing movement, which aims to make all research literature freely available online, had been gaining momentum slowly through the 2000s and 2010s. The coalition wanted to speed it up.

In September 2018, the group announced that all researchers whom it funded would



have to make their papers free to read immediately on publication, either by publishing in open-access journals or by making a near-final copy of their manuscript available online. The group's argument was that knowledge produced using public or philanthropic funds should be available to everyone without delay. The plan was later softened to allow open-access publishing in 'hybrid' journals, which host a mixture of open-access and paywalled research articles.

Plan S, as it was called, alarmed some scholarly publishers because it threatened the predominant business model in which journals publish papers behind paywalls and charge subscription fees for access. Refusing to follow the plan would prevent publishers from printing a sizeable amount of research – but complying would make it impossible to charge

readers to view the content.

Publishers scrambled to introduce open-access offerings by the start of 2021, when the mandate came into force. Many journals decided to offer 'gold' open access, meaning that published articles are immediately made freely available on the publisher's online platform, often in exchange for an article-processing charge (APC), and that others can copy or reuse the work. "We have seen a major shift towards gold open-access publishing, including the launch of numerous gold open-access journals," says Kamerlin.

Some hybrid journals have struck 'transformative agreements' in which university consortia or libraries typically pay a fixed sum to enable affiliated researchers to publish work openly and read paywalled content.

Other publishers favour 'green' open access, in which authors can post online a peer-reviewed version of the article – often an accepted manuscript before final typesetting.

Five years on from the Plan S announcement, observers say that it has successfully accelerated the adoption of open access and driven even reluctant publishers to introduce models that comply with its demands. "It's been an important influence," says Suber. "It showed that funders in general – not just isolated funders – supported open access enough to adopt policies," he says.

Since its inception, cOAlition S has expanded from 12 members to 28, including

the World Health Organization and the Howard Hughes Medical Institute in Chevy Chase, Maryland. The funders in the group differ in how they have applied its policies and which publication fees they will cover. Still, says Suber, "Plan S might be simplifying things, because a couple of dozen funders are agreeing on a set of principles."

Room for improvement

With a huge quantity of research still behind paywalls, the leaders of cOAlition S say they have a lot of work to do. In its annual report last year (see go.nature.com/3qa4j), the coalition estimated, using Dimensions, a large database of published papers, that 3.6% (a total of 168,000) of all published research articles in 2022 were funded by its members. Of those, 79% were open access. Thirty-eight per cent were published in gold open-access journals and 25% in hybrid journals; 14% were available only as green open-access papers. By contrast, it said, 56% of all articles were published open access. (It noted that these were imperfect estimates, not precise calculations.)

The reach of the plan, however, remains limited. Some major European funding agencies – such as the German Research Foundation and the Swedish Research Council – have not joined, nor have any funders from China or India.

The leaders of cOAlition S argue that the global impact of Plan S extends beyond its



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members. They point to funders – such as ones in the United States and Canada – that have adopted full and immediate open-access policies that closely mirror Plan S, even if they haven't formally joined the coalition. Last year, the US White House Office of Science and Technology Policy announced that, by the end of 2025, all results from federally funded research must be made available immediately – a policy that echoes Plan S.

"It's undeniable that Plan S has made a mark on the open-access landscape," says Juan Pablo Alperin, a scholarly communications researcher at Simon Fraser University in Vancouver, Canada, who is an advocate of open-access publishing. But Alperin and other supporters are concerned that the coalition has had an unintended consequence: encouraging publishers to adopt steep APCs.

Their major concern is that only researchers with sufficient funding to afford APCs, or those at wealthy institutions that can negotiate transformative agreements, can publish open access. "APCs are bad for global scholarship, and Plan S is complicit in their continued growth," Alperin says.

Many publishers waive or reduce APCs for authors in low- or middle-income countries. Bianca Kramer, an independent analyst on openscience in Utrecht, the Netherlands, says that there is still a large dependence on transformative agreements. "It will be a challenge to course-correct this towards more-equitable forms of open access," she says.

The leaders of cOAlition S recognize these concerns and say that supporting more equitable models of open-access publishing is a priority. "It would be a failure on our part if we simply replace one model where people can't read with another model where people can't publish because of lack of funds," says Robert Kiley, head of strategy at cOAlition S, who is based in Guildford, UK.

The group stated in January that its members will largely no longer financially support transformative agreements after 2024, partly because of the risk that they – and hybrid journals – would become permanent, allowing publishers to sustain the paywalls that the coalition opposes. But this could have little impact, because universities and library consortia can still enter into these agreements. And in September, cOAlition S announced that it had developed a working group to look at alternative publishing models that do not rely on APCs. One possible model is diamond open access, in which journals are run with financial support from funders or institutions, for example, and don't charge fees to authors or readers.

The coalition's call for zero author fees for open publishing "seems a recognition that the first version of Plan S was going in an undesirable direction: its vision of open access has been delivered through business models which are

highly inequitable", says Richard Sever, the assistant director of Cold Spring Harbor Laboratory press in New York, who co-founded the bioRxiv and medRxiv preprint servers.

A new way of working

Rooryck and Kiley say that cOAlition S is still true to its founding principles, but that it needs to evolve. "Our DNA, our overarching goal, remains unchanged. We want all research to be open access, so anyone in the world can read it and reuse it," Kiley says.

The change they suggest is outlined in the new proposal, which goes well beyond the earlier focus on open-access articles. It now aims to address several often-discussed problems in the research-publishing system: the costs of journal subscriptions and APCs; long delays between submission of an article and its publication while peer review takes place; failure to publish peer-review reports and wasteful repetition of peer review for the same article at different journals; and pressure for academics to publish in highly selective, prestigious journals because journal status is often used as a proxy for research impact.

The coalition's solution, outlined in a document called 'Towards responsible publish-



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ing' is to transition to alternative systems in which members of the academic community control the publication of their work. It points to one example model called 'Publish, Review, Curate': authors post their preprints openly on dedicated platforms and submit their paper for review; academics manage the peer-review process at no charge to authors; and peer-review reports, revisions and editorial decisions are published openly. Costs would be covered by a mixture of organizations, including libraries, funders, governments and universities.

The peer-reviewed articles are then curated by publishers or journals on the basis of their quality or subject, for instance. Thus publishers and journals would still have a role, but wouldn't make the initial decision on when to publish a preprint or peer-reviewed article. Open publication of peer-review reports is a key part of the plan, Kiley says. This will allow readers to judge the intrinsic value of a piece of work rather than using journal names as a

stand-in. "We want these reviews to be public," he says – something that some publishers already implement.

This model mirrors elements of existing practice, such as that used by the publishing platforms Peer Community In and Open Research Europe, and the journal *eLife*. But efforts by *eLife* to adopt this type of model have run into some opposition, and Kiley and Rooryck are well aware their proposal could cause a stir. "I would be surprised if this was met with universal acclaim," says Kiley.

"I can imagine there will be lots of commercial lobbying pointing out reasons this is destined to fail," says Stephen Curry, director of strategy at the Research on Research Institute in London. When asked to comment on the proposal, an Elsevier spokesperson emphasized the value of the firm's work in supporting peer review, training editors and improving article content. A spokesperson for Wiley said that the proposal was "an interesting perspective" and that Wiley also felt that researchers should be able to choose the most appropriate venues to publish their work. "Publishers have a crucial role to play in further improving the global research ecosystem," they said, adding that they "are keen to engage with any proposal that seeks to address routes to responsible publishing".

One criticism of Plan S was that it was launched with little input from the research community, a mistake that the leaders don't want to repeat. After the consultation process on the proposal, the coalition will publish a revised version for member funders to consider. The proposal says that even if funders adopt the refined strategy, other open-access business models "will continue to be supported by cOAlition S for some time".

Funders mandated open-access publication under Plan S, but the current proposal is much less forceful. "It's more aimed at encouraging discussion than the hard requirements of Plan S funders in their first plan," says Kramer. "That's not necessarily a bad thing, but makes its immediate impact less radical." The proposal outlines a range of options for funders and research institutions, such as financially supporting community-led preprint servers or phasing out financial support for hybrid or subscription models, in favour of academic-led ones.

"The test will really be to see how the community and other funders react," says Curry. Kamerlin points out that conversations about the scholarly publishing system often involve only a few voices, and the broader community is much less engaged. "The vast majority of scientists are basically too busy with what they're trying to do, which is survive in a tight funding situation, publish or perish, and teaching, to even know about these policies," she says.

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