

Open Access Overview

Bill Moran

Publisher, *Science and the Science* family of Journals



Open Access Definitions

Article processing Charge (APC)

APC's are per article fees charged by a publisher to make an article open access. APC prices vary by journal and publisher and the cost is covered by authors, their institution, or researcher funders.

Green open access (Green)

Green OA refers to author self-archiving of a version of their paper, usually the final accepted manuscript, in a repository. These articles remain subject to the author or publisher's copyright and re-use terms. The type of repository can vary from an institutional repository at the author's university to larger subject or domain repositories like PubMed. Green OA is mandated by most funders and an increasing number of institutions.

The Science journals have supported Green OA since the NIH announced its Public Access policy in 2007.

Gold open access (Gold)

Gold OA refers to journals that publish fully accessible final versions of their articles, often with few restrictions on how the article can be re-used. These articles are almost always published using a Creative Commons license. APCs are paid by the author upon acceptance in order to publish in a Gold OA journal. These APCs are often underwritten by funding grants or institutional funds. Access is open to all without any restrictions.

Science Advances is a Gold OA journal.

Open Access Definitions



Hybrid open access (Hybrid) Hybrid OA refers to a subscription journal that offers a Gold-OA option to authors.

Double dipping and offsetting

Double dipping is a practice related to hybrid journals whereby a publisher collects APCs to make articles OA but doesn't reduce the subscription prices to account for those articles, therefore effectively getting paid twice.

Offsetting are policies and pricing practices various publishers have put in place to address double dipping. Some publishers have global offsetting policies where they reduce next year's subscription price to offset the growth of OA articles within the journal. Some publishers have local offsetting policies, reducing the amount a licensor pays in step with the volume of OA articles in the journal or what the licensor has paid toward enabling OA publishing.

A very useful article that explains the different offsetting arrangements set forth by publishers:
<https://unlockingresearch-blog.lib.cam.ac.uk/?tag=offset-agreements>

Open Access



OA Overview

All research articles should be free to read and open to the public upon publication. Articles should be published using a Creative Commons license, allowing the greatest potential for adaptation and reuse. While articles are free to read or use by the end-user, an author, funder, or institution provides financial support. This is a fundamental shift in who pays and in our publishing business models.

LATEST DEVELOPMENTS

- Plan S and Horizon 2020
- New commercial arrangements
 - New types of OA transformative deals and trials- read and publish (RAP) publish and read (PAR)
 - hybrid OA models are acceptable for 3-4 years with a transformative agreement
 - Annual Review's *Subscribe to Open*
 - Submissions fees
- Parasitic and predatory journals and concerns over quality
- Community owned and open infrastructure- HHMI proposal
- University Journals

Plan S and Horizon 2020



Plan S Overview

- Plan S supported by 15 national funders (cOAlition S) and 5 Charitable funders coordinating with the European Research Council and the European Commission
- Plan attempts to strengthen and speed the existing EU Horizon 2020 initiative (2021 plans in place)
- Plan S and Horizon 2020 call for published research results resulting from cOAlition funding (or the EU more broadly) to be fully OA
- The cOAlition wants libraries to align their subscription dollars with the plan, giving all parties more negotiating power with publishers

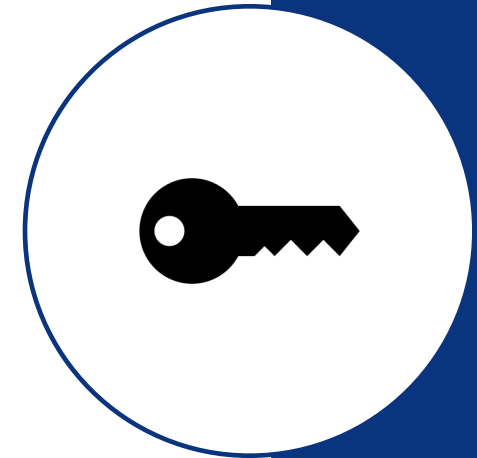
BY 2020?

The coalition includes:

- *Austrian Science Fund*
- *Academy of Finland*
- *French National Research Agency*
- *Science Foundation Ireland*
- *Higher Council for Science And Technology*
- *National Science and Technology Council*
- *National Institute for Nuclear Physics (Italy)*
- *National Research Fund (Luxembourg)*
- *Netherlands Organization for Scientific Research*
- *Research Council of Norway*
- *National Science Centre (Poland)*
- *Slovenian Research Agency*
- *Swedish Research Council for Health, Working Life and Welfare,*
- *Swedish Research Council for Sustainable Development*
- *UK Research and Innovation*

Plan S Key Principles

1. Authors retain copyright and works are published under a CC BY license without an embargo
2. Open access fees will be covered by funders or universities, not by individual researchers
3. Hybrid open access journals will not be acceptable after a three to four year transition period (observed publication costs are greater than in fully OA journals)
4. APC caps will be introduced to reset market pricing (estimated amount is €2,000, not confirmed) **UPDATE: Transparent pricing, instead of a cap?**
5. Funders will establish robust criteria and requirements for high quality open access journals and platforms and will work together to create such high quality outlets and the necessary supporting infrastructure should they not exist (**unclear on how this will be measured and implemented**)
6. Funders will monitor and sanction non-compliant grantees (**What are the sanctions?**)



Concerns



1. Seeks to mandate an orthodox definition of OA (Gold OA; CC-BY) which runs contrary to policy in much of the rest of the world centered on Green OA.
2. Curtails both academic freedom and author choice. 85% of all journals will likely be excluded including most society titles *by end of 2023 unless market adapts*
3. Mandates that authors (and publishers) relinquish control over republication, commercial use, and the creation of derivative versions of their work.
4. Problematic for (the great many) authors without funding for APCs. While Plan S addresses (in theory) the question of authors in developing countries, it does not address the significant problem of authors in developed countries without funding.
5. Potential to stifle international collaboration in situations where co-authors not subject to Plan S requirements wish to publish in non-complaint venues.

Concerns



6. APC caps threaten to homogenize research publication, away from selective, high-quality, community journals (many of which are published or owned by societies) and towards high-acceptance rate, high-volume publications with lower quality controls.
7. Plan S is biased towards commercial publishers, who have economies of scale, broad portfolios to cascade papers, and access to “transformative agreements.”
8. Outsources “compliance” to non-governmental third parties (DOAJ, OpenDOAR) who rely on self-reported data and have struggled historically with filtering out predatory publishers.
9. Seeks to undermine the existing publishing system with no well considered plan as to what will replace it

Plan S Impact



- Averages are misleading – **mileage will vary**
- Current impact is modest outside of the UK and Europe
- Cultivating OA options while “watchfully waiting” a prudent course

Table 1: Plan S: Share of Scholarly Articles in Context

Scholarly articles in 2017...	Shares of Global Research Articles	Share of Global OA Output
Plan S Funders Share of Global Output	3.5%	4.5%

Source: Delta Think Open Access Data and Analytics Tool, Dimensions from Digital Science, National Science and Engineering Indicators, Scopus, Delta Think analysis.

Publisher Activities Exploring OA

- Detailed analysis on costs, submissions, preferred models
- Transformative agreements (2019/2020)
- New fully OA journal launches
- Journal “flips”
- New collaborations and partnerships
- Additional revenue sources (submission fees)



Libraries/Consortia Take Action



UC terminates subscriptions with Elsevier in push for open access to publicly funded research

As a leader in the global movement toward open access, the University of California is taking a firm stand on terminating subscriptions with Elsevier. Despite months of negotiations, Elsevier is unwilling to meet UC's key goal: securing universal access to research while containing the rapidly escalating costs associated with subscription-based publishing. The Academic Senate issued a [statement](#) endorsing

Max Planck Society sides with Project DEAL, cancels subscription to Elsevier journals



Funders Start to Publish

A proposal for the future of scientific publishing in the life sciences

Bodo M. Stern , Erin K. O'Shea 

Published: February 12, 2019 • <https://doi.org/10.1371/journal.pbio.3000116>



Recommendations

To drive scientific publishing forward, we propose several long-term changes. Although these changes could be implemented independently, together they promise to significantly increase transparency and efficiency.

1. Change peer review to better recognize its scholarly contribution.
2. Shift the publishing decision from editors to authors.
3. Shift curation from before to after publication.

Wellcome Open Research

A new way for Wellcome-funded researchers to rapidly publish any results they think are worth sharing.

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Immediate & Transparent Publishing

Gates Open Research is a platform for rapid author-led publication and open peer review of research funded by the Bill & Melinda Gates Foundation

[SUBMIT YOUR RESEARCH](#)

OR

[BROWSE ARTICLES](#)

~ 392 articles

Publishers Begin to Support New Deals

Spotlight: MIT and RSC Sign First North American “Read and Publish” Agreement

MIT
Libraries

Posted on June 19, 2018 in [Featured Articles](#)



Wiley and Projekt DEAL partner to enhance the future of scholarly research and publishing in Germany

Contract signing: Dr. Guido Herrmann, Managing Director Wiley-VCH, and Dr. Frank Sander, Managing Director Max Planck ... [more]

Picture credits: dpa, Tanja Marotzke

Open Access Major Funders

United States

- National Institutes of Health (NIH)
 - *Public Access Policy is a Green OA mandate that requires papers resulting from research funded by the NIH to be made available within 12 months of publication through PubMed Central. Gold-OA is supported through research grants. Science is in compliance with this policy.*
- Howard Hughes Medical Institute (HHMI)
 - *Policy comparable to the NIH. HHMI is one of three organizations underwriting eLife, a gold-OA journal in the life sciences.*
- Bill and Melinda Gates Foundation (Gates)
 - *As of January 1, 2017, all peer-reviewed published research funded, in whole or part by Gates, including underlying data, must be published on immediate open access basis. This is a Gold-OA policy. Gates completely covers APCs. Science and Gates have reached a special agreement to facilitate Gold OA publishing for Gates funded research in 2017.*
- National Science Foundation (NSF)
 - *Policy comparable to the NIH*
- Office of Science and Technology Policy (OSTP) policy covering most Executive Departments and Federal Agencies **UPDATE: Not a signatory to Plan S**
 - *Largely comparable to NIH although individual agencies may enact more aggressive policies or use repositories other than PubMed Central. Science largely complies with the various agency policies however we need to make changes to our free-registration process to comply with CHORUS, a set of industry guidelines and a clearinghouse that brokers access to articles covered by the policy.*

Open Access Major Funders



United Kingdom and the European Union

- Research Councils United Kingdom (RCUK)
 - *Gold OA is preferred, and if publishing Gold, use of Creative Commons Attribution license required. Green acceptable with 6-month embargo for biomedical content and a 12-month embargo in other disciplines. Science is in compliance with this policy.*

- Higher Education Funding Council for England (HEFCE)
 - HEFCE abandoned its Gold-OA requirement used in the 2014 Research Excellent Framework (REF) for a Green-OA requirement in their 2021 REF. The REF is an impact evaluation framework that drives funding allocations. *Science is in compliance with this policy.*

 - *Gold OA is preferred, Green acceptable with 6-month embargo. Science is in compliance with this policy. Wellcome is one of three organizations underwriting eLife, a gold-OA journal in the life sciences. Wellcome recently announced a new publishing platform powered by F1000 for their funded authors. Science is in compliance with this policy.*

Open Access Major Funders



- European Organization for Nuclear Research (CERN)
 - *CERN authors are expected to publish all their results via Gold OA, and, wherever possible, in SCOAP3 participating journals. Science does not comply with this policy nor participate in the SCOAP3 initiative.*
- Max Planck Institutes
 - *Max Planck Institutes are ardent OA advocates, organizing the annual Berlin Open Access conferences and are a major force behind the European Commissions evolving OA policies. Max Planck Institutes require Green OA and strongly encourage Gold OA. Science is in compliance with this policy.*
- German Research Federation (DFG)
 - *DFG requires Green OA and strongly encourages Gold OA. Science is in compliance with this policy.*
- **CHINA (unknown)**
 - **National Science Foundation of China (NSFC)**
 - *Requires Green OA with a 12-month embargo. Science is in compliance with this policy.*
 - **Chinese Academy of Sciences**
 - *Follows NSFC*



- Thank you!
- *Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time.*
-Thomas Edison