



## Editorial

# Sailing the sea of open access: celestial navigation or dead reckoning?

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### Abstract

The Open Access movement has gathered significant momentum over the last couple of years. This has been instigated largely by cOAlition S and those funders which support its aims. Is 'Read and Publish' the way forward? Will it work for all publishers? All authors? All subscribers? All readers? This article looks at the history of OA and updates a similar piece from 2013. A detailed glossary of terms is given at the end of the article.

**Keywords:** APC, Open Access, Plan S, Read and Publish

### Introduction/historical background

*Elements* published the article 'Open Access: A Current Perspective', by Speer *et al.* (2013). The present article is intended to provide an update on the subject and to discuss changes over the past seven years.

The notion of Open Access began to gain traction in the mid-late 1990s (Laakso *et al.*, 2011) though some disciplines, e.g. arXiv in physics (Vence, 2014) had been encouraging self-archiving of published work for some time before then. The Budapest Open Access Initiative (Budapest, 2002) was seen as a milestone in the ambition to make OA publication the default mechanism for distribution of peer-reviewed literature. The Bethesda Statement (2003) followed a year later with the definition of Open Access as: "free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit, and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship."

Also in 2003, the Berlin Declaration on Open Access (Berlin Declaration, 2003 – emanating from a meeting organised by the Max Planck Society, Germany), was the third major statement on Open Access Publication.

As pointed out by Speer *et al.* (2013), the main drivers towards OA publication were the ever-increasing subscription costs *vs.* the static or shrinking library budget. The argument was that research funders were paying for the research to be done, and then paying again to be able to read the results of that research. There was also a sense that the publishing behemoths were controlling an increasing proportion of the market and that, by changing the financial model, this control would cease to exist.

In their 2013 paper, Speer *et al.* argued "OA publishing lacks a demonstrated and sustainable business model." Has this changed? It is clearly changing, but we are not yet at the point of having a global solution. cOAlition S, a consortium of principally EU-based funders of research, issued 'Plan S' (Fig. 1). Plan S (2018), where S allegedly stands for 'shock', "requires scientists and researchers who benefit from state-funded research organisations and institutions to publish their work in open repositories or in journals that are available to all by 2021". In 2020, the debate is still ongoing (some of the original supporters of the cOAlition have since withdrawn) but it has certainly focused the minds of publishers.

The White House (Obama administration) Office of Science and Technology Policy (OSTP, 2013b) directed federal agencies which had budgets in excess of \$100 million per year in research and development spending (e.g. Department of Energy, National Science Foundation and National Institutes of Health) to develop plans to make the published results of federally funded research freely available to the public within 0–24 months of publication, based on the topical discipline, and depending on the national agency. It also required researchers to account better for and manage the digital data (in an interoperable sense, i.e. Open Access, not just of the traditional format replicated for digital (static PDFs) but a born-digital format structured for machine learning) resulting from federally funded scientific research (OSTP, 2013a). At present (Trump administration), a revision of that policy is being considered and the OSTP was open to comments/submissions until April 2020. The sense is that the 12 month embargo will be removed, and research (as described above) will have to be made publicly available immediately after publication, though a period of transition, with a time range from 0 to 36 months, being considered. In 2013, there were two primary kinds of OA publishing:

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'Gold OA': authors or their funders pay an Author Publication Charge (APC) to cover the costs of publication of a paper in an OA or hybrid (mixture of traditional subscription and OA) journal.

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Fig. 1. Plan S logo.

'Green OA': the author has typically not paid an APC but, after a certain embargo period, the published paper can be made available via a freely accessible, author-managed webpage or institutional repository.

Some more recent terms related to OA are: 'Platinum OA', i.e. journals which don't charge any APCs and fund the journals another way, e.g. through a university or research organisation. In 'Diamond OA' journals there are no APCs either; often the work is done on a voluntary or 'in-kind' basis so there is no need for payment.

### What has been the impact of OA over the past seven years?

Because of the way in which OA was funded over the past seven years, the traditional subscription model has continued to exist with a minority of OA funding made available to publish works in OA or hybrid journals. This financial model is not sustainable. It requires more money than was available previously.

The number of truly Open Access Journals has burgeoned. The Directory of Open Access Journals (DOAJ – <https://doaj.org>) (accessed 16th March 2020) lists 14,348 journals which have published >4.7 million articles between them. In 2003, DOAJ was launched with just 300 journals.

In early 2017, the journal *Scientific Reports* surpassed *PLOS One* to become the largest OA journal (or megajournal), publishing 6214 articles in the first quarter of that year (Scholarly Kitchen, 2017).

According to Piwowar *et al.* (2019), in 2019, 31% of all articles were available as OA. 52% of views were to OA articles. Those authors estimate that by 2025, 44% of all articles will be available as OA, and 70% of all views will be to OA articles (Fig. 2). This is clearly an increasing trend.

### Predatory journals

With the very large number of OA journals has come a number of so-called predatory journals, i.e. journals which publish papers without appropriate/any peer review or checks for plagiarism or

ethics. (See the now-defunct Beall's List of predatory publishers at <https://beallslist.net/>.) These journals take up scarce resources and sow doubt and confusion in the literature. The term 'predator' can be extended to journals which do actually try to engage with peer review but which prioritise financial aspects over the review process. Reviewers don't always get it right, but consistent failure to deal appropriately with reviewer criticism does not engender faith in the system. The tricky part is knowing which of the content in these 'twilight journals' falls into the strictly acceptable category and which does not. Journals where a healthy rejection rate makes for a reduced profit (when the publisher is a strictly for-profit entity) does not speak to a good outcome for science.

### What is new in 2020?

Plan S and rumblings from OSTP in 2018/2019 have encouraged publishers to move more quickly than had been the case prior to that.

There are many challenges with Plan S, including these points outlined in the American Chemical Society's statement, published in February 2019 (prior to some revision by cOAlition S):

- Hybrid journals provide a clear path to achieving full and immediate open access—yet are considered 'non-compliant' by Plan S.
- The role of digital preprints in open access should be embraced and included in Plan S.
- Restricting Plan S authors to a current small sub-set of established OA journals risks stifling scientific collaboration.
- Clarity around transformative agreements is lacking.
- A one-size-fits-all approach to article publishing charges (APCs) is problematic.
- The proposed timetable is impractical.

Not all publishers will have the same complaints. Some may not favour digital reprints. Others may be prepared to abide by the 'reasonable level' APC being proposed by cOAlition S. (An updated set of Plan S conditions has been released in April 2020; see below.)

- What about authors who are not supported by a cOAlition S funder?
- What about authors who do research without financial support?

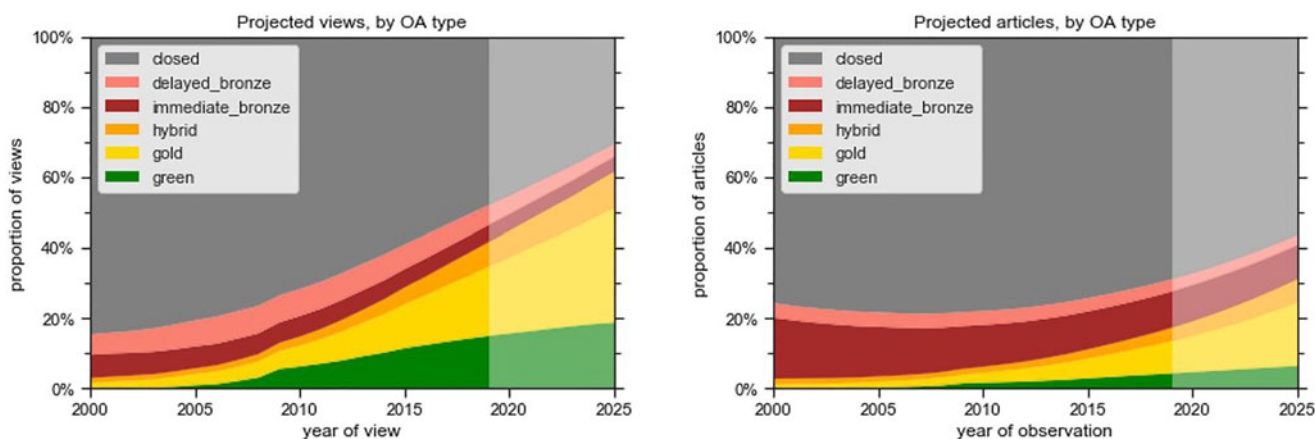


Fig. 2. Percentage of different access types, current and projected. Reproduced from Piwowar *et al.* (2019).

- If funders offer a limited OA budget, some journals will, inevitably, receive more of the OA pie than others.

On 8th April 2020, cOAlition S announced updates to its criteria for transformative journals. Authors funded by cOAlition S funders must publish in journals which meet Plan S requirements. The changes are:

- “...the threshold when a journal must flip to full Open Access has moved from 50% to 75% and we have removed the commitment to ‘flip’ to OA by December 2024. In making these changes, however, we have stressed that publishers must explicitly state their commitment to transition to full Open Access and that our support for this model (in terms of paying for publishing services in subscription journals) will cease at the end of 2024;
- reduced annual growth target for the proportion of content which must be published in Open Access from 8% to at least 5% in absolute terms and at least 15% in relative terms, year-on-year”
- In a recent development, in July 2020, cOAlition S announced a new policy, a ‘Rights Retention Strategy’ and all research published by those authors in receipt of financial support from cOAlition S funders will be subject to it. The intellectual rights to work published will no longer belong to the author or to the publisher but rather to the public. Though many authors are keen to promote their work as widely as possible (and many willingly sign CC BY licenses to publish; this allows unlimited sharing, copying and even translation of the work; to the extent that others may benefit financially from it), others may resent the imposition of this license upon them by funders and removal of the choice about how their work is used by others (Anderson, 2020). In a move which may well be related to the latest cOAlition S pronouncement, ERC (the European Research Council) has withdrawn its support for Plan S.

## Impact

The outline above describes the history of how we got to here and what has changed in the past seven years. This section will attempt to describe the impact of OA on all of the stakeholders.

### On publishers

Publishers have been required to turn on its head, the financial model used in journal publishing for centuries. The advent of online publishing has meant that we can now offer readers a greater suite of tools (searching/reading/data download, collaboration, etc.) and quicker and wider publication. In the past 20 years, however, our ability to carry out our function has been threatened by the demands/implications of OA. We scramble to survive.

Can small publishers survive in the world of ‘Read and Publish’/‘Publish and Read’ deal-making? Will there be space outside of those deals in which they can continue to exist if they cannot make such deals (Harington, 2017)?

### On learned societies

Open Access ‘tipping’ points are causing change throughout scholarly communities. The present authors join many in trying to both document and plan amidst a changing landscape. Some have taken the view that society OA journal publishing should be an extension of the society mission via Diamond Open Access (Harington,

2017). Others with existing subscription portfolios are encouraging embrace of OA while not discarding the historic role of societies and their journals’ place in championing science. They rally their members that, while the future may be open, “...we keep in mind and advocate for the traditional strengths of our peer reviewed publication system: institutional support for publishing, editorial decisions made by practicing scientists, and placing scientific rigor over financial exigencies.” (Piston, 2019).

Learned Society publishers are a subset of the publisher group in the previous paragraphs. In the present authors’ estimate, a significant proportion of Learned Society publishers falls in the ‘small’ category, i.e. with five or fewer journals. Being ‘small’ means being less well resourced in terms of ability to respond to and deal with the implications of a drive towards full OA publication. How do we communicate our specific circumstances to cOAlition S/OSTP people? How do we adjust our *modus operandi* to allow us to continue to operate? How do we ensure a fair share of the library budget pie?

### On funders

Funders (governments, national scientific agencies [e.g. NERC in the UK or NSF in the USA] and charitable agencies, e.g. the Wellcome Trust, Bill and Melinda Gates Foundation) would like to see all published research made available to all, free of charge. How do we achieve that without killing the messenger, i.e. the publishers/Societies?

### On readers

The reader is the big winner in all of this. We will ultimately arrive at a situation where any reader anywhere will be able to access almost any piece of published content they wish. Will readers from the academic community be able to rely on what they read?

- Can we maintain review quality?
- Can we maintain production quality?
- Can we avoid the predator pitfall mentioned above?
- Will the general public benefit from being able to access all of this content?
- Will we need a greater proportion of ‘outreach’ content, i.e. content developed to make it accessible by non-specialist audiences?

Maybe.

### On science

Open access in a digital world fosters dissemination of knowledge and scientists’ collective ability to collaborate and accelerate the pace of research and challenge-solving. We already know from *Mineralogical Society* usage statistics that OA content is, on average, downloaded ten times more than that which is behind a pay-wall. (According to Piwowar, 2019, OA articles are cited, on average, 18% more than non-OA articles.) This information chimes exactly with the mission of the parent organisations of both authors of this article: to publish the results of scientific discourse as widely as possible.

### On authors

This is one of the more difficult aspects to assess. Throughout the twists and turns in the 20 years of the OA saga, some authors have, arguably, been least engaged in the embrace of OA. This silent majority of authors, no matter their sympathies and desires

to propel OA change, default to the path of least resistance in publishing through traditional subscription journals, eager to further their science, win new grants and advance the careers of their lab members. Fundamentally, the economic mechanisms have not been in place to catalyse rapid conversion to OA and authors have responded to the opportunities presented to them, while advancing their disciplines and careers.

When OA funding can be found, authors often reserve it for those key papers where it would have the most impact (and perhaps where it would achieve the greatest visibility). Ironically, journals with the highest impact factors are often those behind paywalls and which generate the greatest levels of income. Reserving hybrid OA fees for them was not what OA was designed for.

### Elements publishers

Several of the Societies/Associations involved in the *Elements* family are also journal publishers in their own right. A brief, informal survey of their views of the OA movement was conducted for this article in order to present a general picture to readers of the situation for journals close to home.

Representatives of the following journals agreed to provide responses to the questions posed:

- *American Mineralogist* (Mineralogical Society of America)
- *The Canadian Mineralogist* (Mineralogical Association of Canada)
- *Clays and Clay Minerals* (The Clay Minerals Society)
- *European Journal of Mineralogy* (Mineralogical Societies of France, Germany, Spain and Italy)
- *Geochemical Perspectives / Geochemical Perspectives Letters* (European Association of Geochemistry)
- *Meteoritics and Planetary Science* (Meteoritical Society) and the associated *Radiocarbon*
- *Mineralogical Magazine / Clay Minerals* (The Mineralogical Society of Great Britain & Ireland)
- *Zapiski Rossiiskogo Mineralogicheskogo Obshchestva* (Proceedings of the Russian Mineralogical Society)

These are the questions which were posed:

- Does your journal have a commercial (or non-profit) publishing partner?
- Does your journal operate under a strictly subscriptions-based model / a hybrid subscription-OA model/fully Open Access model? Or something else?
- If your journal(s) is transitioning to fully-OA status, what, if any, transformative methods are you using? (E.g. SpringerNature has participated in an arrangement with the German Government known as 'Projekt DEAL': <https://group.springernature.com/de/group/media/press-releases/springer-nature-projekt-deal/17553230>)
- What proportion of your journal's income is generated from APCs (author pays charges)? 0–10%, 10–30%, 30–50%, 50–75%, 75–100%
- What is your journal's policy regarding Open Access, i.e. in terms of making its content available to all interested readers and not just those who pay for subscriptions?
- What proportion (percentage) of your Society's overall income is generated by your journal(s)?
- Does your organisation view the move to OA as an existential threat to your journal(s)?

- How is your journal planning to respond to Plan S 'Making full and immediate Open Access a reality'? Though this is largely a European initiative, it seems clear that similar 'plans' will emanate from other jurisdictions, e.g. the purported moves by the White House Office of Science and Technology (USA) to remove the 12-month embargo on green OA.
- What is your view of journals which have been launched in response to the Open Access movement?

Within this small sample group, we have journals with commercial or not-for-profit publishing partners and journals which are published independently. We have journals which range from purely subscription-based, to hybrid (with 0–10% OA content) to journals which are 100% OA. Other than those journals which are already fully OA, only those with commercial or other partners view themselves as being on a path to mostly or fully-OA. It is clear that all Society publishers would wish their content to be available to as wide an audience as possible. For obvious reasons, journals which rely to a significant extent on income from their journals appear more concerned about the 'threat' of Open Access. Societies which can afford platinum OA welcome the move as do those which have already transitioned to OA and are glad of the support for this kind of publication. There is a sense amongst respondents that the APC fees being charged are, in general, too expensive for most authors. Some (most) of the publishers still involved in hybrid publishing do not appear, as yet, to be considering more OA-rich solutions. Within the context of the survey carried out, none of the *Elements* publishers which responded sees the current OA 'heave' as an existential threat.

### Case study

In 2019, the University of California (UC) which has 10 constituent universities and which, in November 2018, was home to >280,000 students) cancelled its 'big-deal' subscription with Elsevier. The Dutch publisher had failed to meet UC's desire to make all articles by UC authors Open Access and to make access overall cheaper. Instead, UC has signed deals with other publishers which are prepared to meet these demands.

Researchers at UC publish, on average 50,000 journal papers per year. The library budget is \$40M. Before any 'Read and Publish' deals, a further \$10M was spent on APCs. Under the terms of the 'Read and Publish' deal, UC asks authors to make the decision about where to publish (offering them much-sought academic freedom) and will support APC fees. Because authors are also asked to help with APCs where possible, they will be partly responsible for finding the best APCs, which, in turn, will help to invoke a sense of competition among publishers.

UC and the California Digital Library (CDL) is an advocate for accelerating change and supporting societies and librarians on how, in turn, to catalyse transformation to OA. In April 2019, UC entered into its first OA 'Read and Publish' agreement with Cambridge University Press. According to the blog of Anneliese Taylor, Head of Scholarly Communication at UC (Taylor, 2020): "The agreement includes OA publication for UC-authored articles. The Libraries pay for access to subscription journals and contribute \$1000 to each APC. Authors with grant funds are asked to pay the remainder from their funds, and those without may have the full APC covered by the Libraries. Authors may opt-out of the open access option at their discretion, thus ensuring academic freedom while simultaneously providing all authors with financial support for open publishing." The University, having received

significant support for this bold move, asks whether it might become a tipping point in the move to OA.

Since the events in 2019, CDL began inking new R&P deals in 2020 with five publishers thus far, including PeerJ, MDPI, PLoS, Springer Nature, and even a newly humbled ... Elsevier.

### What is the future?

A quick glance into the past before attempting to provide an answer to that question. The version of OA which has been in vogue since 2013 has not led to the bulk of content being available to all because there is not enough money out there in the world of libraries to pay for subscriptions and Open Access (at the same time). There never was and never was going to be. (Aside: in the 1990s publishers grew very concerned that Document Delivery/Pay-per-View was going to take over from subscriptions. It failed for the same reason that OA to date has not worked. There is only one pot of money and it is finite.) The temporary answer, i.e. pre-publication and Green OA, has not worked either, and won't. Why? Because librarians and readers want to see the content in the context of the journal in which it was ultimately published.

Open Access papers published (and attendant revenue) are increasing and will continue to increase year on year (whether in hybrid or Gold OA journals).

### Transformative deal

One viable solution, which could work, is that which transforms subscription money into Open Access money (to put it very simply). In Plan S terminology, deals based on this solution are referred to as 'transformative'. Forward-looking, mostly larger publishers have been quick to negotiate with libraries and consortia (e.g. University of California above) to come up with deals which do that. University College London (<https://www.ucl.ac.uk/library/open-access/transformative-subscription-deals>) has such transformative deals in place with American Chemical Society, European Respiratory Journal, Institute of Physics, IWA Publishing, Microbiology Society, Portland Press Biochemical Society journals, Royal Society of Chemistry, Springer and Wiley. The deals vary from one publisher to the next, but for the most part allow authors to publish OA in those journals without additional cost to them or the institution.

From a University Press publisher perspective, Cambridge University Press has transformative deals in place with 28 entities (Cambridge Core, 2020, <https://www.cambridge.org/core/services/open-access-policies/read-and-publish-agreements>).

At a national level, the German government has put in place 'Projekt Deal (2020)' for which the stated objectives are:

- Immediate Open Access publication of all new research articles by authors from German institutions
- Permanent full-text access to the publisher's complete journal portfolio
- Fair and reasonable pricing for such services articulated with a simple and future-oriented model based on the number of articles published

So, moves and negotiations at all levels. But the following questions remain to be answered:

- Is 'Read and Publish'/'Publish and Read' likely to instigate the aforementioned tipping point?

- Or will a significant proportion of the international subscription budget remain as that, money allocated to subscriptions?
- Will it be possible for one- or two-journal publishers to respond adequately, i.e. negotiate 'read and publish'-style deals with each of its library customers?
- Will libraries want to negotiate with small Society publishers in this regard?
- What about institutions which cannot afford either subscriptions or APCs? They will benefit from the OA secured by other institutions (i.e. the output from that other institution's authors will be OA) but local authors will have to find journals which do not require APCs (in which case their content will be behind a paywall).
- And what of libraries at institutions which do a lot of teaching but little or no publishing? What reason is there for them to continue to pay money to publishers, if, as more institutions sign up, a greater proportion of content becomes available as OA?

### Who has the ultimate responsibility?

Which players are responsible for what?

Some funders, e.g. those in cOAlition S, have got off the fence and forced publishers into action. Will other funders from other parts of the world respond similarly, or wait for critical mass?

Many institutions are keen to change the ancient paradigm (of subscriptions-based existence) and even to move past the hybrid-journal idea. Neither solution is working and in many institutions, readers are left without access to key content because of budget and other restrictions. Key participants have taken a brave step. Will others follow?

Publishers in this play are more cautious. No surprise – they stand to lose most. Those with greater resources and larger teams of staff are better placed to move with the changing landscape. Smaller, hybrid publishers will wait until the picture becomes clearer. Will there still be time to secure some of those precious library resources if we do reach that OA tipping point? There is an irony here in that the move to Open Access to reduce the impact of the very large commercial publishers has had the opposite effect. Society publishers which have joined forces with commercial or not-for-profit partners are perhaps the most likely to be ready when the tipping point (between subscription-based and OA publishing) is reached, if it is reached.

Readers have always been very resourceful. They obtain a copy of the content they need by asking the author for a copy, by paying to download it, or, worst of all, by obtaining it from a site where it is hosted illegally. Everything on the internet is free isn't it?

And, finally, authors (all of whom are also readers; though not all readers are authors) have a significant responsibility here. What is it you would like? Does "the right to publish your work in a good-quality journal with high peer-review standards, decent review times and good access to an appropriate audience (best assured by Open Access)" sound about right? If all of your work is so important that you or your institute can afford to publish your every word as Open Access, read no further! If, however, you struggle to meet all of the criteria above, at a price you and your institute can afford, then perhaps consider changing your publishing habits.

To continue the simplistic approach above, if all library subscription money was transformed to 'Read and Publish' money, then all authors would:

- Be able to publish in the journal of their choice (following the peer review process);
- With no additional charges (beyond the Read and Publish deal fees); and
- Reach the widest possible audience

This is not likely to be how it pans out though. Some publishers won't wish to transition; some institutions won't negotiate for change; some readers would like greater access but may rely on current routes to content rather than attempting to drive change; and some authors will not wish to adjust their publishing habits. Societies and other publishers which are working towards a solution which provide excellent and fair peer review, in a reasonable amount of time, and make the published content available to the widest possible audience are those which should receive the most support. Aren't they?

## Summary

The view of the present authors is that we are reaching critical mass in terms of OA. No longer will the majority be able to continue to rely on traditional subscription funding model with OA simply a bit-part player. Is an OA-only world realistic? We have a hill to climb if we are focussed on an all or nothing approach but OA will certainly be a significant part of the future. Two important entities (cOAlition S and OSTP) have made significant moves but they have not been backed by some of the other major powers in the world of science publishing. All eyes are on China: it has previously broadly supported OA movements such as Plan S but has not yet made any firm commitment. And the future may depend on moves by visionaries, publishers and libraries, who see a different future.

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## Glossary of Terms

- APC, author processing charge, the publication fee which is sometimes charged to authors to make a work available open access in either an open access journal or hybrid journal. Typically, this fee may be paid by the author, the author's institution, or their research funder.
- arXiv, an online repository of Open Access publications, largely for the Physics, Mathematics and Computing communities (<https://arxiv.org/>)
- Beall's List, a (now-defunct) list of predatory publishers (<https://beallslist.net/>)
- Big Deal, a term used to describe deals between large publishers and libraries, where for a single fee, the institution would have access to all of that publisher's journals
- Bill and Melinda Gates Foundation, a charitable organisation which supports the Open Access movement and which pays APCs for some authors (<https://www.gatesfoundation.org/>)
- Bronze Open Access, articles are free to read on the publisher page, but lack a clearly identifiable license ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))
- cOAlition S, an initiative for Open Access publishing (<https://www.coalition-s.org/>)
- Diamond Open Access, a version of OA in which journals don't charge any APCs but where all of the journal work is done on a voluntary basis (often conflated with Platinum Open Access – see below) ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))
- DOAJ, directory of Open Access journals (<https://doaj.org/>)
- Embargo, a period after initial publication of a paper, behind a paywall, after which the content can be made available through other means, e.g. in a repository
- Gold Open Access, a version of OA in which journals charge an APC in return for which the author's paper is available to all to read, without barrier and without embargo ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))
- Green Open Access, self-archiving by authors is permitted under green OA. The author posts the work to a website controlled by the author, the research institution that funded or hosted the work, or to an independent, open repository. If the author posts the near-final version of their work after peer review by a journal, the archived version is called a 'postprint'. This can be the accepted manuscript as returned by the journal to the author after successful peer review. ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))
- Hybrid Journal, a journal which hosts both OA content and content which is paid for under the traditional subscription model
- NERC, Natural Environment Research Council, UK (<https://nerc.ukri.org/>)
- NSF, Natural Science Foundation, USA (<https://www.nsf.gov/>)
- OA publishing licence, Creative Commons licensing allows authors to choose how best to share their work with other researchers/authors/readers (<https://creativecommons.org/>)
- Open Access (OA), a publishing model for scholarly communication that makes research information available to readers at no cost, as opposed to the traditional subscription model in which readers have access to scholarly information by paying a subscription (usually via libraries). ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))

- OSTP, Office of Science and Technology Policy, USA, <https://www.whitehouse.gov/ostp/>
- Outreach, a way to connect with and inform an audience, perhaps not the originally intended audience
- Plan S, an initiative for OA publishing which was launched in September 2018 (<https://www.coalition-s.org/>)
- Platinum OA, a version of OA in which journals do not charge an APC but where a journal's costs are borne by a third party, e.g. a university. ([https://en.wikipedia.org/wiki/Open\\_access](https://en.wikipedia.org/wiki/Open_access))
- PLOS One*, a non-profit, OA publisher in science and medicine (<https://plos.org/>)
- Postprint, an accepted but not copy-edited, typeset or proof-read version of an author's paper (<https://en.wikipedia.org/wiki/Postprint>)
- Predatory publisher, a publisher which charges authors publication fees but which does not offer peer review or editing services ([https://en.wikipedia.org/wiki/Predatory\\_publishing](https://en.wikipedia.org/wiki/Predatory_publishing))
- Preprint, traditionally, a version of a scholarly or scientific work which precedes peer review (<https://en.wikipedia.org/wiki/Preprint>)
- 'Read and Publish'/'Publish and Read' agreements support Open Access publishing in journals for publicly financed research articles. The 'Publish' element covers the Article Processing Charges (APCs) for authors from affiliated institutions who wish to publish in the publisher's hybrid and fully Open Access journals, depending on the agreement. Under the 'Read' element, affiliated institutions are granted access to the publisher's journals. (<https://scholarlykitchen.sspnet.org/2018/09/04/read-publish-good-academy/>)
- Repository, an online archive for scientific publications; they can be institutional, subject-based or centralised repositories (European Commission: [https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/open-access\\_en.htm](https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/open-access_en.htm))
- Scientific Reports*, an online, OA, scientific megajournal published by Nature Research, covering all areas of the natural sciences (<https://www.nature.com/srep/>)
- Transformative Agreements, a change to the contract between a subscriber (e.g. library) and publisher, i.e. from subscription-based, to Open-Access based
- Wellcome Trust, a UK registered charity (= non-profit) established to improve human and animal health (<https://wellcome.ac.uk/>)