Plan S for publishing science in an open access way: not everyone is likely to be happy

Juan C. Gómez-Fernández¹

Received: 16 October 2019 / Accepted: 30 October 2019 / Published online: 10 November 2019

© International Union for Pure and Applied Biophysics (IUPAB) and Springer-Verlag GmbH Germany, part of Springer Nature 2019

Most scientists are probably already aware of an initiative that was launched by the European Commission and which has been adopted by a number of European Governments (including France, the UK, The Netherlands, Sweden, Germany) and also by funding foundations as the Bill and Melinda Gates Foundation and The Wellcome Trust. This initiative has been called Plan S (Plan 2019).

Plan S (or more formally cOAlition S) requires that, from 2021, scientific publications funded either by public grants from countries supporting it, or by adhering agencies and foundations, must be published in open access (OA) journals or platforms that are totally free of charge for the reader.

After this initiative, it will no longer be possible to publish in non-OA journals (e.g., the ACS journals, *Science and Nature*) for those receiving funding from the European Research Council or from other research councils or foundations that have joined the cOAlition S, unless journals, like those mentioned above, change their policies.

Letter from European scientists

Although this initiative may be a good thing for people who want to read scientific journals for free, it immediately gives rise to doubts. For example, more than 600 European scientists sent an open letter (European Scientists 2019) which said that,

“We support open access (OA) and Plan S is probably written with good intentions. However, Plan S, as currently presented by the EU (and several national

funding agencies) goes too far, is unfair for the scientists involved and is too risky for science in general. Plan S has far-reaching consequences, takes insufficient care of the desires and wishes of the individual scientists and creates a range of unworkable and undesirable situations.”

They stated that the complete ban on high-quality hybrid (society) journals (those in which you may choose to either publish or not publish in an open access format) is a big problem for these Societies, since these journals support the activities of these Societies and the benefits are used to promote science. For these reasons, the persons supporting this letter hope that a large part of the world will not (fully) tie in with Plan S, for example the USA, China, and the rest of Asia. They stated that after Plan S is put in practice, in which researchers pay high charges for each publication, the total costs of scholarly dissemination will likely rise instead of reduce. By these reasons, they claim that researchers should have the freedom to choose publication venue, and while complying with open access mandates to also choose how papers are made open access, in a way that contributes to minimal increased costs for the publishing system while not impinging on academic freedom or jeopardizing internationalization in research and higher education.

Arguments in Proceedings of the National Academy of Sciences USA

As stated above, Plan S may pose some problems to learned Societies publishing journals. By this reason, this controversy has been given a lot of attention in different scientific journals. An example of this is the recent publication of a number of papers in *PNAS USA*. In a first paper called, “Plan S falls short for Society publishers—and for the researchers they serve” (McNutt 2019a), the President of the Academy, Marcia McNutt, expressed her concerns about cOAlition S and Plan S. She complained that whereas the idea of moving to a new

✉ Juan C. Gómez-Fernández
jcgomez@um.es

¹ Departamento de Bioquímica y Biología Molecular A, Campus of International Excellence Mare Nostrum, Facultad de Veterinaria, Universidad de Murcia, 30100 Murcia, Spain

system of publication could be made with good intentions, the current Plan S may do more harm than good, especially by negatively affecting scientific societies that obtain a substantial proportion of their funds from publications. These Societies use this money to sponsor scientific activities, like bursaries to students and meetings.

The subject of that opinion letter was replied to in another opinion letter jointly signed by Robert Kiley (Wellcome Trust) and Robert-Jan Smits (Open Access Envoy of the European Commission) who argued in favor of Plan S (Kiley and Smits 2019). In their letter titled, “cOAlition S: Response to PNAS”, Kiley and Smits stated that they expected that scientific organizations would cooperate with the promoters of Plan S in order to facilitate the proposed change to full open access (OA) publication of scientific papers.

The President of the National Academy of Sciences further responded to this letter with another alternative, “Meeting Plan S’s goal of maximizing access to research” (McNutt 2019b). She claimed that a much easier way to trigger changes in the publication model could be to use the preprint servers. She called this model Plan U.

This proposal has certainly many advantages and the use of these preprint servers is widely used in some fields like Physics or Mathematics, but one may worry about the effect of depositing a preprint in one of these repositories since there are a number of journals that will not accept pre-published papers. Before this could be operative, a very important change in the policies of journals will be necessary.

Comments in *Nature*

Other journals have also helped to voice opinions about this controversy. For example, a *Nature* news piece (Else 2019), titled “High-profile subscription journals critique Plan S”, stated that journals with top reputations, like *Nature* and *Science*, cannot comply with Plan S. They argued that the proposed OA model would bring problems with the high internal costs currently necessary for high-quality journals and that this may lead to a reduction in quality. Furthermore, *Springer Nature* suggests “that the Plan S coalition engage in individual, confidential talks with publishers to explore “bilateral solutions”.

Conclusions

If most scientists will publish OA, there will be an immediate benefit for readers: they will be able to gain access to most publications totally free. However, it is evident that journals cannot be published without cost and that somebody must pay for this. Nowadays, readers pay for subscriptions and authors in some cases for publication. With Plan S, this model may be heavily shifted to payment by authors. This could be a problem for authors whose financing agencies would not fund them specifically for this and in these cases funds will lead to repurposing of funds from other expenses as chemicals or equipment. If highly cited journals will charge a high fee to everybody to publish totally open, it could occur that authors from less developed countries will not be able to publish in them. But this could be also the case for researchers with no specific subsidies within their grants for this purpose of paying publication fees.

Many questions remain open about Plan S and it is clear that this policy will create an earthquake, the ripples of which will affect scientists around the world. Of course, it is Europeans that will feel the first of any shocks.

References

- Else H (2019) High-profile subscription journals critique Plan S. *Nature* (February 26, 2019). doi:<https://doi.org/10.1038/d41586-019-00596-x>
- Kiley R, Smits RJ (2019) cOAlition S: response to PNAS. *Proc Natl Acad Sci U S A* 116(13):5859–5860. <https://doi.org/10.1073/pnas.1902136116>
- McNutt M (2019a) Opinion: “Plan S” falls short for society publishers—and for the researchers they serve. *Proc Natl Acad Sci U S A* 116(7): 2400–2403. <https://doi.org/10.1073/pnas.1900359116>
- McNutt M (2019b) Reply to Kiley and Smits: meeting Plan S’s goal of maximizing access to research. *Proc Natl Acad Sci U S A* 116(13): 5861. <https://doi.org/10.1073/pnas.1902498116>
- Plan S (2019) Making full and immediate open access a reality. <https://www.coalition-s.org/>
- European Scientists (2019) Reaction of researchers to Plan S: too far, too risky? <https://docs.google.com/document/d/12dP20OxhjdaUAcc4x8f0TDUWTxCTSF0Xv53w25-JLIE/edit>

Publisher’s note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.