Open Science Feedback on the Guidance on the Implementation of Plan S

Answering to the request for feedback on the Guidance on the Implementation of Plan S, we here, as a group of individuals interested in the future of Open Science, provide our perspective. We see Open Science as the approach of doing sound, innovative scholarly research (not just sciences, but also humanities, etc.) that opens up research and does not exclude people. Open Science encourages this by starting from three fundamental freedoms of open research: research outputs can be reused, can be modified, and the modified and unmodified output can be shared with others - without restriction. In doing Open Science, authority and standards do not have to be enforced with copyright law, such as non-derivative clauses, but can be set by community standards; just like attribution (i.e., citation) is a community standard.

1. We welcome the bold action of cOAlitionS, as we feel collectively that progress towards Open Science is going slowly, and while Open Access is just one aspect of it, broad access to knowledge is an essential component for the future of equitable scholarship. We acknowledge that Plan S cannot be seen in isolation within the wider scholarly communication ecosystem and that other integrated reforms are needed too (e.g. in research and career assessment). We do not see why the move to 100% Open Access has to wait for other problems to be solved first, but recognise that in order for an ecosystem to shift many elements often need to move in synchrony.
2. We note that the Guidance appears often to be focused on the publishing business model and note that some of those models are clearly forbidden (e.g. those limiting open science freedoms). Despite the fact that Plan S clearly anticipates reasonable costs and sustainability (e.g., can funds be used for shareholder profits or for lobbying activities by learned societies, can it be used to promote open science as envisioned by cOAlition S?), it remains less clear what is explicitly compliant, or allowed, with Plan S. We welcome clarification here, and prefer to see that, if there is, overhead to be used for the broader support of the open science freedoms. This could include minimizing the costs of publishing and reading scholarly journals, or the general support of open science education, open data, or open source; but in all cases, the open science freedoms must be at the core and the use of profit must be transparent.
3. We recognise the efforts from cOAlition S to provide offsetting of costs and waivers for those from less wealthy organisations/countries. However, in doing so, this is also an implicit acknowledgement that the APC-model for OA actively discriminates on a financial basis, and is thus inappropriate to support - especially when we are talking about the expenditure of public funding. Support should be widened to reflect this, including towards more equitable models of scholarly publishing, and for anyone who can demonstrate a financial need for such support. Inclusiveness matters.
4. We note that supporting hybrid journals, if such support negatively affects fully OA journals (open license, with or without author cost) in the same domain, is not acceptable and jeopardizes high-quality journals that have already made the wished-for transition to, or even started as, a fully OA journal.
5. We welcome the guidance towards making research dissemination in scholarly journals more findable, accessible, interoperable, and reusable (FAIR). This is very important for

Open Science. The specific mention of XML reflects this wish, but by shortlisting one open standard, we risk that the focus will be on that and not on the broader machine readability and interoperability of article formats. Of course, the format in which the "source" of the article is provided must use an Open Standard.

6. We regret that Plan S and the Guidance do not focus on the full and necessary interoperability of the dissemination of knowledge via journal articles with other core aspects of Open Science, such as Open Data, Open Standards, and Open Source, but only mention the linking to them. We stress that cOAlition S should not wait until all articles are available under an open license to address these aspects of Open Science. The quality of "*supplementary information"* or "*additional files"*, and other routes of making essential research output associated with the article, is currently substandard for many (quality) journals and impedes reuse, discoverability, and interoperability. The relevance of this must not be underestimated, especially if Plan S wishes to also have parallel reforms in research evaluation.
7. The specific requirement for a CC BY license, or any specific license, may be too restrictive. What matters are the aforementioned three open research freedoms. The CC BY license allows these, but is only one compliant option. We urge cOAlition S to focus on the rights and not a specific license, allowing for other existing solution (e.g. public domain) and innovative new solutions (perhaps improving on the CC licenses). Licenses such as ND or NC place vast restrictions on re-use, and are not in the spirit of the Open Science freedoms.
8. We understand that cOAlition S consists mainly of funders, and that the research outcomes of their funds are new publications. However, we also note that with Plan S they urge journals to migrate to a full Open Access nature. We agree with this ambition and foresight and urge cOAlition S to work with all stakeholders to make this happen. But this should not be limited to new literature, and we encourage cOAlition S to recognise that there is an incredible value still locked away in the historical corpus of scholarly articles. While the Open Science rights mentioned in the sixth point ensure archiving, use in education, repurposing, use in research software, text/data mining, etc, we also urge cOAlition S to extend this ambition to our scholarly heritage. A hybrid transition phase could involve a step where all scholarly literature older than 6 months (current situation in The Netherlands) or 12-24 months is automatically released and made available under the aforementioned three freedoms.
9. We warn against some of the proposals for repositories, deposits, and green Open Access, which needs to be very carefully implemented (e.g. as envisioned by the Confederation of Open Access Repositories (COAR)). The current guidance is not specific enough leaving too many loopholes, and often with unnecessary technological requirements, which can be better implemented as community standards. More guidance must be given around requirements for compliant journals to provide findable, accessible, interoperable, and reusable metadata on the location of green versions of the article. Furthermore, an independent, authoritative mechanism must be instantiated that tracks the open license metadata in hybrid journals, which must guarantee this information is available to libraries for at least the period copyright runs out for the article. Finally, the metadata must clearly specify the nature of the differences between the AAM and VoR version (layout only, number of editorial edits, etc).
10. Finally, we would like to see the Guidance further specify what it describes as "quality" for a journal, which in the context of open science goes beyond peer review and metadata.

Quality is generally poorly-defined, or inappropriately out-sourced to things such as the journal impact factor, and leaving this to the community to be defined is a recipe for disaster. The journal impact factor is now too often mentioned in the discussions around Plan S. The Guidance, instead, should require journals to transparently provide information about key aspects that can be used to determine the scientific quality. We do not require specific metrics, but can envision that publicly reporting rejection rates, composition of the reviewer community over the past year (gender balance, geographical or age distribution, etc.), adoption of open standards, tight integration with other Open Science outputs, etc. reflect the quality of the journal. Thus, we encourage Plan S to require more transparency throughout the entire scholarly communication process, in order to facilitate more evidence-informed decision making.

Summarizing, we welcome the steps taken by cOAlition S with Plan S and the Guidance on the Implementation of Plan S, but think there is plenty of room of improvement to ensure its seminal role in the full transition towards Open Science.

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Final list of signatures for the formal submission on 8 februari 2019.

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