a cOAlition S

Comments on the First Draft of the UNESCO Recommendation on Open Science

11 January 2021

Dear UNESCO Open Science Committee,

cOAlition S – an organization of 25 research organisations and charitable foundations dedicated to full and immediate Open Access for research results – welcomes the opportunity to react to the Preliminary Report on the first draft of the Recommendation on Open Science as well as the First draft of the Recommendation on Open Science, ref CL/4333.

cOAlition S would very much like to express its enthusiastic support for the Recommendation on Open Science formulated by UNESCO. It is a well-written document that formulates a bold vision for Open Science and aligns well with our own 10 principles for Open Access formulated in Plan S, and the international collaboration in cOAlition S that we believe to be essential for success both in Open Access and in Open Science. The implementation of your Recommendation should enable scientists the world over to share their research data and publications in order to confidently tackle the societal challenges before us, from COVID-19 to climate change. cOAlition S shares the goals of UNESCO on Open Science, and subscribes to every aspect of the text. We believe that a common understanding of Open Science should be promoted with enabling policies and investment in Open Science infrastructures. We agree that incentives for Open Science should be aligned — as we have done for Open Access and that international cooperation in this space should be intensified, with respect for particular situations in different parts of the world. The Report rightly emphasizes access to science in the context of the Universal Declaration of Human Rights, and the empowering nature of Open Science for marginalized groups.

Our main comments below are therefore simply intended to enhance the positive reception of the document by the various member states. We also include an Appendix with more specific textual suggestions for improvement.

In general, we find that the Recommendation on Open Science as it stands could give more attention to the importance of **copyright law**. Authors often thoughtlessly transfer their intellectual rights to the publishers. Researchers should be much better informed of the ways in which they can avoid copyright transfer so they can retain these crucial intellectual rights. We also believe that governments should do more in terms of legislation to protect authors' rights against the monopolies of the academic publishers.

A second element we believe could be underscored more is **the importance of language diversity** in the context of diversity of knowledge (II.9.(viii)). Scholarly multilingualism was stressed as an essential aspect of Open Science in the Helsinki Initiative on Multilingualism in Scholarly Communication. The Recommendation on Open Science now rightly underscores the importance of diversity of knowledge in II.9(viii), including openness to indigenous knowledge systems, but it does not sufficiently acknowledge at this point in the text that this diversity of knowledge is expressed in a variety of languages, including indigenous ones. The importance of languages is only mentioned quite late in the document (II.15(iv) and IV.19(e)). A truly inclusive statement should recognize that science and scholarship are carried out in many different languages that should be valued and respected in the same way. Alongside this multiplicity, English has a role as the lingua franca of science and scholarship.

We also recommend that the **monitoring of Open Science**, the topic of Section V, be explicitly kept under public control and whenever possible supported by open non-proprietary and transparent infrastructures. It is vital that this monitoring aspect not be delegated to the private sector.

Sincerely yours,

Johan Rooryck

Executive Director, cOAlition S

Appendix: Detailed textual suggestions

On p.3 of the recommendation, you refer to the "associated risks" of the advances of the digital world. It would be good to spell out what these risks are for Open Science specifically, and how these can be mitigated. Otherwise critics of Open Science could take advantage of such a general statement to say that even UNESCO recognizes there are risks to this goal.

On p.4 you refer to the term 'Open Science'. There are many advocates who plead to replace this term by 'Open Research', as it is more inclusive of researchers in the Humanities who often do not identify as 'scientists'. If the term cannot be changed — which would be understandable in view of the widespread acceptance it has gained — it would be good to explicitly mention that it aims to include all aspects of scholarly practice and production.

In section II.9(i), you mention re-usability of research, but this is left unspecified. We recommend that the notion 're-usable' would be immediately specified in terms of the CC licenses that enable this reusability, and that are now only mentioned later in the text. In this same section, we enthusiastically support the recommendation that scientific outputs should be deposited upon publication in an online repository. This requirement is still not fully implemented even in those countries that are frontrunners of Open Science, and it is of course crucial for its success.

In section II.9.(iv), you mention Open Science Infrastructures. We would suggest that you underscore the fact that such infrastructures are often international and used by researchers all over the world. Their international nature often makes it very difficult to find financial support for them, given the national mandates of funding agencies. The long-term sustainability of international Open Science infrastructure demands a global collective effort, solidarity, and responsibility that UNESCO is particularly well placed to direct and effect. We would also like to underscore that these international Open Science infrastructures are often the result of community building efforts which are crucial for their long-term sustainability. These community building efforts deserve to be mentioned here. We acknowledge you do so in IV(20(d), but a reference here would echo the one in that section.

For all the subsections of II.9, we suggest that the language be unified in terms of strong recommendations. Now some paragraphs are formulated as recommendations (using 'should'), while others, e.g. (v) on Open Evaluation, are just framed as definitions. So, for instance, "organized assessment of research with highly transparent and participatory peer review process" could be rephrased as "assessment of research should be organized with a highly transparent and participatory peer review process".

In section II.10, it would be good to refer more explicitly to the FAIR principles. In section II.11(iii), the reference to all people and cultures should include a reference to languages (all people, cultures, and languages), as these often are distinct entities.

Tel: +33 (0)3 88 76 71 00

In section II.12(iv) we recommend to explicitly mention the crucial role of librarians as educators of the scientific community: they provide researchers with precious information about scientific publishing and

open data. Similarly, in section II.12(ix), the role of funders is not just to enforce Open Science in exchange of research money. Just as crucially, research funders should develop policies to recognize and value Open

Science in their selection procedures. This is an aspect that cOAlition S funders have taken to heart and put

into practice.

Section II.13: we respectfully note that the purpose of this sentence is not entirely clear to us. The role of CC

licenses should already be mentioned much earlier in the text, as we suggested above. It is however odd to

state that they coexist with Open Science, as the text in II.13 now suggests.

In section III.16(b), "language" should be mentioned alongside "country of origin, gender, field of research,

funding basis, or career stage"

Section IV.18(c) The term "encouraging" may be too soft here. Perhaps "making mandatory as much as

possible"?

Section IV.19(i) is a policy that cOAlition S wholeheartedly supports, given the Price and Service Transparency

Frameworks we have developed. However, at this point in the text, the paragraph comes across as a bit surprising, as there is nothing announcing it in the preceding text. Perhaps reference could be made earlier in the text to "globally equitable prices and fees for academic publishing" which would then be made more concrete in this paragraph? Also, at the moment clients of academic publishing are quite helpless against "vendor lock in, predatory behaviour, extraction of profit" etc. UNESCO might consider encouraging member states to consider measures to correct the distorted oligopolistic market of academic publishing, and to

undertake coordinated action in this regard.

Section IV.21(b) should also include a reference to research software in addition to data science and

stewardship. Also in IV.24(d): Software also needs to be made sustainable.

Section IV.22, first paragraph: it is unclear what is meant by "premature sharing of research results". Please

clarify.

Section IV.22(c) It would be good to mention the H-index alongside the Journal Impact factor. Also under the second bullet point, please include books as research outputs since they play a crucial role in Social Sciences

and Humanities and tend to be overlooked.

Section IV.23(a) the encouragement of preprints. One way of doing this is to encourage and promote postpublication review publishing, as is the case at Open Research Europe (ORE), Wellcome Open Research (WOR)

and elsewhere.

cOAlition S

Hosted by European Science Foundation 1, Quai Lezay-Marnésia

France

Tel: +33 (0)3 88 76 71 00 Fax: +33 (0)3 88 37 05 32 info@coalition-s.org

www.coalition-s.org

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