

RE: Draft UNESCO Recommendation on Open Science

Dear Director General,

The International Federation of Library Associations and Institutions (IFLA) represents all types of library, around the world, with Members in over 150 countries. At the heart of its work is the understanding that information and excellent library services can improve lives and societies.

In this context, we strongly welcome the work of UNESCO to prepare a Recommendation on Open Science, and the work that has taken place to date. The document as presented is already in a very good place, and so we would suggest only relatively minor changes at this stage.

In particular, we would suggest the following potential amendments. We also note the contribution of the Ligue des Bibliothèques européennes de recherche (LIBER) and support the points made in their letter.

Preamble Paragraph 7 (Affirming...): we would suggest including reference to Article 19 of the Universal Declaration of Human Rights, as well as to Article 19 of the International Covenant on Civil and Political Rights, which highlight the importance of the freedom to seek, receive and impart information.

Preamble Paragraph 18 (Acknowledging...): we strongly welcome the reference to the 2030 Agenda. We suggest that it would be powerful to reference, in particular Goals 17.6 and 17.7 which provide an avenue for making Open Science a core part of the SDGs, but which have yet to be fully realised. UNESCO has a key role in highlighting this link, and so in realising the potential of Open Science as a development accelerator.

Paragraph 10: we would suggest caution in the wording here, to ensure that it is clear that restrictions should also only apply where they are necessary, as well as proportionate. This will ensure that, for example in the case of Intellectual Property Rights, Member States can choose to exercise their right to apply copyright exceptions and limitations for certain uses.

Paragraph 11: we welcome these points, but suggest that in points i and ii, it should be underlined that a key goal of Open Science is to facilitate collaboration between scientists, in addition of course to access. A key goal of open science is to enable better working together.

Paragraph 12.iv: we do not support the combination of librarians and computer scientists into a single category, and would suggest that two separate sub-points would do justice to the contributions that both groups can make. As the Recommendation is written now, it will make little sense to the library community.

A point focused on librarians could highlight their role in providing training, advice and support to researchers and students on relevant topics (such as research data management, copyright and licencing, research design, publication and dissemination), in developing and providing services and infrastructure that support OS practices and outputs (such as support for open education, metadata, data curation, discoverability, digital preservation, repositories, library OA publishing initiatives), in safeguarding the scientific record, advocating for Open Science within institutions and more broadly.

Paragraph 14: We note the reference to the importance of transforming the boundaries of intellectual property, although suggest that Open Science represents rather an active choice not to apply the possibilities that (arguably over-) expansive intellectual property laws offer to privatise knowledge, given that these tend to be contradictory with the goals of science and research. As such, we would recommend the following addition: *'Open Science critiques and transforms the boundaries of intellectual property to increase access to knowledge by everyone, recognising that overly broad protections can drive inequities and hinder the progress of science'*.

We nonetheless note the importance of ensuring that there is a market for innovative products and expressions. However, as in particular in the context of COVID-19, we would strongly recommend that the Recommendation recognises the value of wider openness, for example, in the context of responses to global health/societal/development challenges. The Open COVID Challenge is a good example here. This could be achieved by adding the following text to the end of the paragraph: *'We nonetheless also note, in line with the Doha Declaration on TRIPS and Public Health, the role of openness and use of flexibilities around intellectual property rights in the context of responses to major global health, societal and development challenges'*.

Paragraph 16: Regarding point (a) we would recommend introducing the words 'verifiability' and 'reproducibility' into the paragraph, to make clear the importance of these in wider scientific openness. Both are important – being able to verify results is important, but even more so is the possibility to recreate experiments fully.

Regarding point (c), and given the focus on ethics elsewhere in the document, it would be worth adding 'ethics' to the title of this point.

Paragraph 19.i: we believe that this is a particularly important point, and should not be changed. There is increasing concern about vertical integration in the scholarly

communications sector which risks, as the draft Recommendations says, locking in researchers and others, and allowing companies to develop significant datasets that can be used for profit. In effect, we risk seeing – albeit on a smaller scale – similar situations to those encountered in the wider internet economy with major platforms. This should not be allowed to happen.

Paragraph 20: we very much welcome the focus on the importance of infrastructure, although would argue that this should not just focus on digital infrastructure. Initiatives such as DOAJ (and others covered by the SCOSS programme) may need a wider definition than that already provided, but all play their part in supporting open science. They should also be considered as key infrastructure that should continue to operate independently in the interests of the wider scientific community.

We strongly welcome the focus on connectivity in this paragraph. We suggest that the Recommendation should make clear in point (b) that internet connections need to be affordable and as free as possible from restrictions. This could be done by making the following addition: ‘Reliable **and affordable** internet connectivity and bandwidth, **as far as possible free from restrictions**, for use...’

In point (c) we would suggest that NRENs take advantage of the possibility in many countries to connect libraries of different sorts. This would fit well with the focus on citizen science and participation, given the role of public internet access in libraries in bringing people online equitably. This could be achieved by making the following additions: ‘National research and education networks (NRENs) and their functionality, encouraging regional and international collaboration to ensure maximum interoperability and alignment between NREN services, **as well as connection of libraries and other eligible institutions in order to facilitate citizen participation**’

In point (d) we would suggest that the word ‘discovery’ be added to the list of purposes for which community-controlled infrastructure should be created. UNESCO may want to make specific reference to the value of helping institutions build or join repositories, which represents a key first step towards participation in Open Science.

In point (f) we would suggest adding in words underlining the importance of all tools and standards developed respecting the goal of facilitating inter-disciplinary research.

Paragraph 21.d: we welcome the reference to Open Educational Resources. It could be made clearer that the results of Open Science can, themselves, feed into creating OER, and indeed that support should be offered for this (either directly, or through recognition of researchers who do this).

Paragraph 22: we would recommend making a small clarification in the introduction to this paragraph, to bring this into line with international law: ‘...*the global South by the global North, **unjustifiable** loss of intellectual propriety and knowledge, and premature*

sharing of research results...'. This is important in order to avoid a chilling effect on open science.

Regarding point (a), we would add that there should be cooperation across levels of government, not just between countries. Given that there are different global, regional and national efforts, coordination is important.

Regarding point (b), we would suggest it could be helpful to refer explicitly to the San Francisco Declaration on Research Assessment.

Regarding point (e), we welcome the recognition that APC-based models of open access are not suitable in many countries, while noting that they are still a core part of the landscape in the developed world. We would suggest attention, in this paragraph, to ensure that UNESCO is therefore recommending exploring non-APC based models where relevant, without excluding APC-based models elsewhere. The current text could be read as excluding APCs everywhere.

We would suggest adding in a new point, mirroring point 11c of the UNESCO Recommendation on Open Educational Resources: *'Raising awareness concerning exceptions and limitations for the use of copyrighted works for educational and research purposes. This should be enacted to facilitate the use of a wide range of works in Open Science, recognizing that the fulfilment of research goals as well as the development of Open Science requires engagement with existing copyright protected works'*.

We would recommend adding in a further new point, mirroring point 15.e of the UNESCO Recommendation on Open Educational Resources: *'Exploring the development of an international framework for copyright exceptions and limitations for education and research purposes to facilitate cross-border exchange and cooperation on Open Science'*.

Paragraph 24: in line with the existing UNESCO Recommendation on Open Educational Resources, we would suggest including a reference to the importance of exploring how international law and regulation can facilitate sharing and collaboration. In particular, point (i) could highlight the value of looking at whether international action around copyright could provide clarity to researchers and others involved in Open Science. This could be done with the following addition: *'Promoting and stimulating cross-border collaboration on Open Science, leveraging existing transnational, regional and global collaboration mechanisms and organizations. This should include joining efforts towards universal access to the outputs of science, regardless of discipline, geography, gender, ethnicity or socio-economic circumstances; development and use of shared Open Science infrastructures, as well as capacity building, repositories, communities of practice, and solidarity between all countries regardless of their state of Open Science development;*

Paragraph 25: we welcome the focus on monitoring, and suggest that more reference be made to the goals set out in the Recommendation. This will help ensure that any reporting focuses on the importance of promoting the non-profit, non-commercial character of Open Science. Furthermore, we suggest setting a deadline for reports from Member States in order to ensure that UNESCO can consider progress, for example within two or four years.

Regarding point (i), we would suggest making the following addition, in line with the spirit of the Recommendation: *'deploying appropriate research mechanisms to measure the effectiveness, efficiency, **equity and inclusiveness** of Open Science policies and incentives against defined objectives'*.

More generally, there is no call on governments to develop coherent, long-term Open Science strategies, engaging all relevant ministries. This would be an important call to make, within the context of this Recommendation, in order to encourage action, and provide Open Science actors with the confidence to invest themselves. We would recommend including such a recommendation in this paragraph, or in a separate one. Similarly, developing metrics or indicators of Open Science could also help in ensuring meaningful action to implement this Recommendation.

Yours faithfully,

IFLA