



## COMMENTS FROM GLENN HAMPSON (OBSERVER) TO THE MAY 2021 INTERGOVERNMENTAL MEETING OF EXPERTS (CATEGORY II) RELATED TO A DRAFT UNESCO RECOMMENDATION ON OPEN SCIENCE

*Please note that the opinions in this document are the views of the author and are not an official representation of the views of OSI, UNESCO, or any individual or institution connected to these organizations.*

### 1 MINUTE STATEMENT

Thank you Madame Chair—good early morning from Seattle. Congratulations on your election, and thank you for allowing me time to speak. My name is Glenn Hampson. I lead a very large, international group of research communication experts who have been working closely with UNESCO for six years now to develop an evidence-based global policy framework for the future of open science, open data, and other open solutions. The findings of our group are based on decades of observations and experience, and are closely aligned with the findings of the world’s leading open solutions scholars. Unfortunately, and to be a lonely voice of dissent in the chorus of support we have heard here today, many of these experts sincerely believe that UNESCO’s open science policy draft, while a good first effort, still does not reflect the correct approach to open science—which is, namely, to truly embrace the reality that open is a vastly complex and diverse space in which one-size-fits-all policies—especially policies that are built on ideological foundations and without adequately consulting the research community—simply don’t work and may in fact end up harming science and equality more than helping. In our humble opinion, we feel the best way to strengthen this draft would be for UNESCO to take the version of this policy that emerges from this debate in a few days, and then refine it further based on extensive consultations with scientists around the world, not to delay, but to ensure this bold and needed policy will serve us well and also stand the test of time. We would be pleased to provide more detail on these remarks, and to assist with this work as requested. Thank you.

If follow-up is permitted, we would be pleased to provide supporting details and documents, such as:

- A summary of the Open Scholarship Initiative’s (OSI’s) vision of open solutions (including open science)
- Supporting documents (including policy papers, briefs, presentations, and scholarly articles)
- Specific areas where UNESCO’s draft policy is out of alignment with experts
- How UNESCO’s current policy draft can/should be edited



## SUPPORTING DETAILS AND DOCUMENTS

If requested by participants, the following information can be provided to support this summary statement. Additional details will gladly be provided as requested.

### SUMMARY OF OSI'S VISION:

- OSI's vision of open science is a world where all stakeholders, institutions and regions work together to develop comprehensive, realistic, inclusive, and sustainable open solutions that respect the wide diversity of needs, perspectives and outcomes in this space. Critically, open is not the goal of this undertaking, but serving science and society. Open is a tool that can help us, but cannot—and must not—be pursued without evidence and without regard for the needs of researchers and the unintended consequences of our actions, which at present includes making science worse off than before, not better.

### SUPPORTING DOCUMENTS:

- On Friday, 5/7, I will be leading a panel presentation for WSIS, organized by UNESCO's CI sector (see [Session 368— ALFM C7:E-Science: Revisiting Openness for Science and Sustainable Development | WSIS Forum 2021 \(itu.int\)](#)), advocating for the adoption of this more inclusive, less ideological vision of open.
- See OSI policy paper 4 (Open Solutions) for additional detail on this concept, as well as OSI issue brief 4, a recent presentation for CIS, and a recent article published in The Scholarly Kitchen. All of this information is available from the OSI website at <https://osiglobal.org>, and can also be emailed to this group upon request.

### SPECIFIC AREAS WHERE UNESCO'S DRAFT POLICY IS OUT OF ALIGNMENT WITH EXPERTS

The open science draft policy developed by UNESCO is at odds with the recommendation of leading scholars in the open space (as reflected in OSI's reports). The main differences are as follows:

- OSI's action recommendations take researcher perspectives into account, and describe how the international community must work together on goal-oriented, evidence-based approaches to improving the future of science and knowledge sharing. UNESCO's plan, like Europe's Plan S, was created without adequate input from scientists, with only a limited understanding of the open solutions space, and attempts to create a one-size-fits all plan without respect for the vast diversity in open needs, perspectives and solutions.
- Science itself is fundamentally opposed to ideological approaches. Yet here, ironically, this policy draft turns open science into an ideological construct that does not align with the reality of open or of science, and does not accurately reflect broad global expertise in the open space.
- The NS sector made an admirable effort to learn a highly complex subject in a highly condensed period of time, but it simply lacked the time to absorb and objectively assess everything needed. For instance, the global open data leaders who helped write our recent report on open solutions

understand that codifying exactly what open data is and is not will make it harder for real-world open data/science collaborations to continue their work. We're already seeing this kind of policy conflict with GDPR, which did not adequately consider researcher needs before being implemented. As a result, many global studies are being threatened or delayed because the way they manage data, which is aligned with best practices in science, but does not align with the theoretical constructs in GDPR of how data should be managed. In addition to this narrow authoring perspective, the UNESCO consultation process featured far more open activists than scholars or actual scientists. For example, four of the five speakers in the US/EU regional consultation were open activists committed to achieving an ideology-based version of open, regardless of where the evidence leads them.

- The risk of moving forward with this draft, even with edits, is to deeply fracture the international open community, further marginalizing the global south since APCs are not affordable, data repositories aren't accessible, and big-data analysis tools are leased, all leading to a world where vastly more information will be populating science from the global north. Respectfully, UNESCO's highest and most important responsibility isn't to solve the open science puzzle—it lacks the resources and authority to do so—but to create a framework through which, over time, the global community can work together toward developing the right solutions. That's the only way forward, not with one-size-fits-all approaches, but with diverse, sustained engagement with the vast diversity in this space, working to understand all needs and perspectives and working to bring the community together around developing local, bottom-up solutions that respect the needs of researchers and local communities first and foremost.

#### **EXAMPLES OF AREAS WHERE THIS DOCUMENT CAN/SHOULD BE EDITED:**

- From preamble, page 1: "Considering that more open, transparent, collaborative and inclusive scientific practices, coupled with more accessible and verifiable scientific knowledge subject to scrutiny and critique, is a more efficient enterprise that improves the quality, the reproducibility and impact of science and thereby the reliability of the evidence needed for robust decision-making and policy and increased trust in science." This statement is incorrect. Open methods by themselves don't create better science. Open science can be bad, and closed science can be good. Open science is not a substitute for working to improve science reliability and replicability, nor are open methods by themselves sufficient to create better science or address the myriad issues also related to improving science, such as peer review, funding equity, impact metrics, and the culture of communication in academia. Open methods should be one arrow in our quiver, but there is simply not enough overlap between needs and capabilities for open methods to improve all of science writ large.
- From the preamble, page 2: "Noting that Open Science practices fostering openness, transparency and inclusiveness, already exist worldwide and that a growing number of scientific outputs is already available in the public domain or made available under open license schemes that allow free access, re-use and distribution of work under specific conditions, provided that the creator is appropriately credited." This statement confuses cause and effect. There is a growing amount of collaboration in science, and a growing amount of research work that is available to access, but the drivers of this growth are not license schemes. For example, most robust international science collaborations are in fact "closed" networks where only qualified

participants are able to access data under limited conditions. And most open research is published under a wide variety of “quasi-open” arrangements, with only a minority of this work published under the strictest CC-BY type of license (or CCO in data). Finally, the majority of “open” research is not motivated by “openness” per se but by practical research needs.

- From the preamble, page 2: “*Recognizing* the significant available evidence for the economic benefits and substantial return on investment associated with Open Science practices and infrastructures, which enable innovation.” There is no such evidence. There is significant evidence of the economic benefits of research, and there is mounting evidence of the economic value openness in societies, but open science practices and infrastructures are not adequately defined to allow for objective measurement, nor have these impacts been objectively measured.
- From Section 1, paragraph 3i: “To achieve its aim, the key objectives and areas of action of this Recommendation are as follows: (i) promoting a common understanding of Open Science, associated benefits and challenges, as well as diverse paths to Open Science.” This statement is internally inconsistent. Open science is a diverse construct with a diverse array of approaches, motives, benefits, and paths to success. The correct aim should be to promote a common understanding of, and provide support for, this diversity, not to promote a “common understanding” of what is open, what challenges “it” faces, and how to achieve “it.”
- From Section II, paragraph 6: This section is replete with errors:
  - Open science is not defined as stated
  - The goal of open science is not to make knowledge openly available for “everyone.” Most often, the goal is to make knowledge more accessible to researchers in the field.
  - The benefits to society from open science are currently aspirational. The primary goal is how we can benefit science.
  - All scientific disciplines are not equally represented in open science, nor are all humanities. There is wide variation by field, as well as by institution, region, researcher stage, and more.
  - The “key pillars” to open science are not what any scholars in this field would recognize. For instance, completely missing from this list are real factors such as trust, reliability, replicability, and researcher engagement.
- From Section II, paragraph 7: “Open access to scientific knowledge generally refers to access to scientific publications, research data, software, source code and hardware that are available in the public domain or under copyright that has been released under an open licence that permits reuse, repurpose, adaptation and redistribution by others; provided to all actors in a timely manner regardless of location, nationality, race, age, gender, income, socio-economic circumstances, career stage, discipline, language, religion, disability, ethnicity or migratory status; and free of charge to the largest extent possible.” This is simply not true. There are a wide variety of open outcomes. The majority of the world’s “green” open, for example, is free-to-read material on PubMedCentral, and the majority of this work is copyrighted, embargoed, and published without data and in English only. There is no set convention that “open” must mean zero embargo CC-BY; in actuality, open outcomes exist along a spectrum defined by discoverability, accessibility, reusability, transparency, and sustainability (DARTS). Also, in survey after survey over the years, most researchers around the world have rejected the most liberal open conditions because they don’t trust them—because they worry about the potential impact

on their work—and instead have opted for more protective licenses such as CC-BY-NC-ND (which is essentially traditional copyright).

- From Section II, paragraph 8: This section describes a potentially onerous regulatory regime whereby widespread and essential data collaboration enterprises would be “outlawed” for not being open enough. The reality of research is that these enterprises are successful because they include protections for researchers and their data. To the extent these protections are reduced, important research may be jeopardized, particularly in the health sciences.
- From Section III, paragraph 14: “The core values of Open Science stem from the rights-based, ethical, epistemological, economic, legal, political, social, multistakeholder and technological implications of opening science to society and broadening the principles of openness to the whole cycle of scientific research.” While it is true that all open movements, including open science, have ideological origins, it is essential to recognize that over time, all of these movements have also evolved an understanding that there are no one-size-fits-all open descriptions and policies, and that the evolution of open can only be met by recognizing the many unique needs and challenges in this space, not by enforcing an ideology that simply doesn’t apply to most modern instances of open.
- From Section IV, paragraph 17a: What exactly is a “inequitable extraction of data and knowledge”? Is this recommendation calling for an end to all research collaboration where inequities are perceived? What does this mean for wealthy countries who may feel there isn’t sufficient return on investment for translating documents into other languages, or creating free-to-read versions of journal articles? Science by its very nature requires sharing and collaboration. To describe precisely how this needs to take place and create some kind of adversarial “equity” formula for sharing is both unnecessary and potentially destructive.
- From Section IV, paragraph 17b: Our goal must be to help science succeed, not help pre-defined (and inaccurately at that) science sharing methods succeed. By stipulating that as national policy, all publicly funded research henceforth must be openly licensed with minimal embargo will cause a shift in research and publishing policies that have unpredictable and not necessarily beneficial impacts. For example, the EU’s Plan S strongly endorsed a shift toward authored paid publishing and an end to subscription models. As a result, the cost of publishing research has now escalated far beyond the reach of most scholars in the Global South. We have gone from “paywalls” to “playwalls” (for the record, this policy shift was opposed by most open scholars; the outcome was entirely predictable). As noted earlier, most of the world’s major and robust data collaborations (in genomics, vaccines, cancer, and more) are based on closed systems of approved users. Shifting as a matter of policy to a system where information must, by default, be immediately open to the public for any form of reuse will cause these efforts to cease operating, for some unknown and unproven benefit of complete public access. We need to think through these recommendations more carefully, with significant input from the research community, and not be led by ideological demands.
- There is much more. Overall, this policy should be significantly shortened and focus on the major goals described in OSI’s Plan A (<https://plan-a.world>), supporting an approach to open science based on developing a better understanding of the open solution space, and working together as a global community on developing flexible, scalable, practical solutions that build from evidence-driven researcher needs. I understand that you don’t want to rewrite this draft, but honestly, the director’s slide show was a far better summary of what a good open science



policy should look like than this draft. This same open, inclusive, flexible, accommodating sentiment she expressed does not come through in the draft policy this group will be debating. Sometimes a rewrite is the best revision of all 😊. It might mean waiting another two years for adoption, but those two years could be spent lining up support for this policy, building infrastructure, aligning action behind global goals to open climate change research, and more—actions that can help even further crystallize the approach that UNESCO is trying to develop.