

STATEMENT:

ARTICLE PROCESSING CHARGE (APC) POLICIES ON OPEN ACCESS (OA) PUBLISHING MODEL: THE IMPACT ON DEVELOPING COUNTRIES AND THE NEED FOR A MULTILATERAL SOLUTION

Over the past years, the Open Access (OA) publishing models have been shaping the way we publish, allowing scientific articles to be freely available online without any funding or legal barriers. At a first glance, the OA publishing model apparently universalizes science, making it accessible to everyone, in agreement with the human right to science, as recognized by Article 27 of Universal Declaration of Human Rights (UDHR, 1948). The economic model that seems to have gained prominence, particularly for flipping subscription-based journals to OA and/or adopted by many prominent new titles, is one where the financial burden is shifted to the authors. Most often, this is bundled into one article processing charge (APC); though some hybrid journal titles have a non-OA APCs, and an additional OA charge, in case the author(s) are interested in publishing into so-called Gold OA. So let us call this Author-Pays OA, keeping in mind that the author charges are most often, though not always, termed APCs.

This model (the economic model of Author-Pays OA, not OA in general) often incurs extremely high publication costs for the authors. The exorbitant article processing charges (APC) that come hand-in-hand with the Author-Pays OA publishing model deepens the inequality between researchers from developed countries and those in lower income countries. This is exacerbated by the policies included in the “Plan S” initiative promoted by many European and American science agencies, with the support of the European Commission and the European Research Council. This plan, announced in 2018, requires that from 2021 scientific publications resulting from research funded by public grants must be published in compliant OA journals or platforms. This regulation highlights the global trend towards publications in OA journals, which offloads the costs of publication on the authors even though these grants themselves do not necessarily pay for APC.

The Author-Pays OA model represents a large barrier for the global scientific community, with particular impact on the progress of early career researchers. In developing countries, APC associated with the publication of scientific articles could represent a large proportion of the annual grants (as much as 35-130%). In general, OA fees/charges are too high given that the publishing industry depends on the voluntary, non-paid, peer-review activities of the research community. Although Biological and Medical Sciences are currently the most affected areas, in the near future, the OA model will impact other disciplines or fields of knowledge. Under this new paradigm, the ability to publish scientific research from developing countries in highly cited and reputable journals is at risk. To overcome this, researchers from developing countries may either not publish or share authorship with colleagues from developed countries to share the burden of the APC. It should be noted that although it is possible to request fee waivers, this option is often denied if the country does not qualify as a very low-income country.

Research and academic institutions also contribute to the problem by implementing evaluation methodologies based on journal-based metrics (such as Journal Impact Factors) to assess and compare the scientific contribution of individuals and institutions. Therefore, as recommended by DORA (San Francisco Declaration on Research Assessment) there is an urgent need for less biased new evaluation strategies.

Within the draft text of the UNESCO Recommendation on Open Science (CL/4363, from May 2021), an international framework for open science policy and practice was provided. The

recommendation recognizes disciplinary and regional differences in open science perspectives, takes into account academic freedom, gender-transformative approaches and the specific challenges of scientists and other open science actors in developing countries, and emphasizes the need to advance towards open science reducing the digital, technological and knowledge divides between and within countries.

In the midst of this complex scenario, we believe that the international community should assume the challenge of exercising multilateral governance and academic cooperation in the face of the inequities that arise from this new OA publication model. To that end, the signing global organizations promote the creation of an *ad hoc* worldwide committee (**Global Initiative for Equitable OA Models**), working under the umbrella of multilateral global academic institutions or similar bodies. The Committee aspires to:

1. Establish a fluid dialogue between the various members of the scientific community, policy makers and representatives from governments, to further discuss options and implement joint actions for an equitable model of OA for the global scientific community.
2. Draft a global agreement aimed at enforcing equitable access to publishing in OA Journals moving away from Author Pays OA and toward models that either a) repurpose existing subscription funds to fund e.g. sponsored OA or b) subscribe-to-open OA; or obtain funding for academic publishing from institutions or other public sources (diamond/platinum OA). Regulation should include guidelines aimed at setting copyrights.
3. Create a global economic containment network to financially support the least developing countries and scientifically lagging countries in order to strengthen national scientific R&D systems in line with objectives previously established by the countries at the multilateral level, such as the United Nations Sustainable Development Goals (UN SDGs).
4. Set up a network of existing or new diamond journals from developing countries, aimed at promoting non commercial open publishing practices with clear and transparent regulations and strong standardized peer review processes. This can lead to new prestigious and recognized options where scientific communication will prevail over the interests from the publishing industry.

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This initiative arose from a group of young scientists who are members of The TWAS Young Affiliates Network (TYAN) and The Argentinian Young Academy (AJA), in collaboration with different National Young Academies and Institutions listed below. Under the premise that the universality of knowledge is a fundamental principle of science and a human right, we must encourage collaboration at the regional and global level that involves governments, multilateral institutions, regional organizations and transnational corporations.

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Signatory Organizations:



TWAS Young Affiliates Network (TYAN)
 Academia Joven de Argentina (AJA)
 Youth Innovation Promotion Association of Chinese Academy of Sciences (YIPA CAS)
 The RSE Young Academy of Scotland
 Young Scientists Network - Academy of Sciences Malaysia (YSN-ASM)
 Cameroon Academy of Young Scientists (CAYS)
 National Young Academy of Bangladesh (NYAB)
 Belgian Young Academy (Jonge Academie, JA)
 The Royal Society of Canada's College of New Scholars, Artists and Scientists (RSC SRC)
 Burundi Council of Young Scientists
 Sudanese academy of young scientists (SAYS)
 National Academy of Young Scientists (NAYS) Pakistan
 Thai Young Scientists Academy (TYSA)
 The Global Young Academy (GYA)
 Die Junge Akademie (Germany)
 National Young Academy of Nepal (NaYAN)
 Académie des Sciences pour les Jeunes en République Démocratique du Congo (ASJ-RDC)
 Young Academy Finland

The World Academy of Sciences for the advancement of science in developing countries (TWAS)
 Consejo Latinoamericano de Ciencias Sociales (CLACSO)
 Foro Latinoamericano sobre Evaluación Científica (FOLEC)
 Izmir Institute of Technology
 Women in Science Without Borders (WSWB)
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