

THE CHALLENGES OF DIAMOND JOURNALS IN THE FACE OF VARIOUS SUSTAINABILITY MODELS: THE CASE OF ANGOLA



Emanuel Catumbela

Faculty of Medicine, Agostinho Neto University
Angola

1. Introduction to Diamond Open Access

Angola participates for the first time as a co-organizer of a global event in the field of diamond open access scientific journals, through Oscar Ribas University ([Gungula, 2023](#)). This is a unique opportunity to share the reality of our country regarding the management and financing model of scientific journals, and above all, to learn from the experiences of other countries, some of which have a much more developed and stable open access policy, with academic, business, researchers, and readers more aware of the benefits of open access to knowledge ([Caballero-Rivero et al., 2019](#); [Rezende & Abadal, 2020](#)).

The concept of Open Science gained prominence with the publication of the Budapest Declaration in 2002 ([Abraham et al., 2012](#)). In this declaration, participants made commitments to ensure that all scientific information would be openly accessible to everyone, as opposed to the commercial models available at the time and still existing today: those in which someone must pay to access or publish scientific content.

According to Silveira and colleagues, the concept of “open science” is quite broad as it goes beyond information technologies ([Silveira et al., 2021](#)). It involves people, processes, technologies, and the life cycle of scientific research. The Facilitate Open Science Training for European Research (Foster) has developed a taxonomic system for Open Science aimed at systematic and in-depth understanding of the “operational

system” of open science (Pontika et al., 2015; Garcia & Boing, 2021), as presented in Figure 1. Open science aims to strengthen collaboration among scientific researchers, transparency in evaluation processes, and the swift and easy dissemination of research results. Open science is a democratic tool, both for publication and for access to information resulting from scientific research, particularly that related to local knowledge of local and global interest (Vicente-Saez & Martinez-Fuentes, 2018).

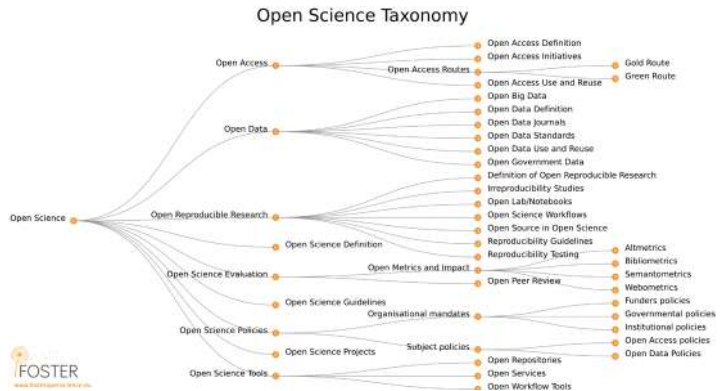


Figure 1. Structuring Open Science.

There are different models of open access to science; due to their extent, we will mention only a few (Open Access, 2023):

1. **Gold Open Access:** In this model, the publisher makes articles available to the public without charging any fees. However, some publishers may charge authors a fee known as Article Processing Charges (APC) to cover administrative processing costs.
2. **Green Open Access:** This allows authors to publish the same article on other websites, such as institutional sites or repositories, where readers can access, download, and read for free.
3. **Hybrid Open Access:** Journals following this model have a combination of articles freely accessible to readers and others for which access is paid. In this model, open access articles this manner.
4. **Diamond Open Access:** Refers to academic scientific journals or monographs edited by higher education or scientific research institutions that make their articles

available to readers without charging anything to either readers or authors.

2. Situation of Scientific Journals in Angola

We conducted a survey on the quantity of scientific journals in Angola and managed to map 20 scientific journals, as shown in Table 1. Approximately 14 (60 %) journals have online publications, and of these, 6 (43 %) are active, meaning they have publications in this year (2023). All these journals are published by higher education institutions or research centers, and their content is open access, with no APC charges for authors and no payment required from readers. Many of the journals are quite recent, with an average age of just over 6 years, and several have been on hold due to the disruption caused by Covid-19.

The existing scientific journals play a significant role in the Angolan scientific landscape. They serve as the primary vehicle for scientific dissemination for many Angolan scientists, being more accessible and publishing in Portuguese, the official language in Angola.

The concept of open access journals in Angola is well-established, although there is a low level of general knowledge about Diamond Open Access. Among us, the issue of Diamond Open Access does not arise since all journals are open access, with no charges for Article Processing Charges (APC). Not even those three journals that are indexed in more than two international databases charge any fees to readers or authors.

The challenges facing Angolan scientific journals are still of an organizational, structural, functional, scope, and visibility nature. The regular availability of articles for publication is another challenge, as the scientific community and culture are still in their early stages, resulting in few authors in certain areas, despite the presence of several higher education institutions and some research and development institutions.

Another challenge that local journals face is the stigma from some researchers, particularly those involved in master's or doctoral programs in Angola, who prefer to publish in foreign

journals with a “high impact factor” recommended by foreign university administrations. This factor affects the regularity and relevance of some journals, leading to a loss of publication of articles with significant results and placing them further in the background of the global line of scientific journals.

On the other hand, Angolan scientific journals are providing opportunities for the dissemination of research results from various Angolan authors and beyond. This allows for an understanding of the Angolan reality by both national individuals and foreign researchers.

Table 1. Angolan Scientific Journals Identified until 2023

#	Journal Name	ISBN	Since	Last Issue	Access Type
1	Revista Angolana de Ciências	2664-259X	2019	2023	Open
2	Revista Angolana de Ciências da Saúde	2789-2832	2020	2023	Open
3	Revista SAPIENTIAE	2183-5063	2015	2023	Open
4	Revista Sol Nascente	2304 – 0688	2012	2023	Open
5	Angolan Mineral, Oil and Gas Journal	2708-2989	2020	2023	Open
6	RECIPEB: Revista Científico-Pedagógica do Bié	2789-4487	2021	2023	Open
7	Revista Órbita Pedagógica	2409 – 0131	2014	2022	Open
8	Angolan Industry and Chemical Engineering Journal	2790-0606	2021	2022	Open
9	Revista Realidade Social	2790-6124	2022	2022	Open
10	Revista Olhar Científico	2957-7756	2022	2022	Open
11	Revista Angolana de Extensão Universitária	2707 – 5400	2019	2021	Open
12	Revista Científica do ISCED da Huíla	2709-8931	2020	2021	Open
13	Revista Científica da Clínica Sagrada Esperança	2312-3923	2008	2020	Open
14	Revista tundavala - Revista Angolana de Ciências da Sociais	2520-0305	2010	2016	Open
15	Revista Angolana de Sociologia	2312-5195	2009	2014	Open
16	Revista Angolana de Agropecuária	-	2020	2020	Open
17	TUNDAVALA: Revista Angolana de Ciências	-	2012	2015	Open
18	Revista Angolana de Ciências e Tecnologias de Informação e Comunicação – RACITIC	-	-	-	Unknown
19	Revista Multidisciplinar em Ciências Sociais e Human	-	-	-	Unknown
20	Revista Académica “LUCERE”	-	-	-	Unknown

3. Sustainability of Diamond Open Access Journals in Angola

The sustainability of Diamond Open Access journals in Angola is maintained by the hosting institutions of the journals, which are predominantly higher education institutions. In the case of the Scientific Journal of Clínica Sagrada Esperança, it is sustained by the homonymous clinic. This sustainability, in many cases, boils down to paying the salary of the editorial team, often consisting of employees of the hosting institution who engage in other activities simultaneously. Additionally, these institutions support the technological infrastructure that allows the visibility of the journal, and in some cases, they bear the costs of printing the journal.

The strategic development issues of journals, such as an infrastructure aiming to comply with international resolutions, for instance, publishing scientific articles in other formats like XML, do not receive support, and the journals do not progress at the desired pace.

On the other hand, initiatives for updating on the latest methodologies, techniques, policies, and procedures, as well as refreshing the editors and their associates, are pushed to a secondary role due to a lack of funding. Consequently, the global competitiveness of Angolan journals is compromised.

From the perspective of public funding, Angola relies on the Foundation for Scientific and Technological Development (FUNDECIT), established in 2021, which is responsible, among other things, for financing scientific publication, whether through publishers or simple journals ([FUNDECIT - Fundação para o Desenvolvimento Científico e Tecnológico, 2023](#)).

However, two years later, no announcement has been made to support the financing of scientific journals. We are confident that an announcement with this purpose will be published shortly. We will see how public funds can reach companies or publishers and help elevate Angolan journals to a new level.

Internal and external cooperation, such as the creation of the Network of Angolan Scientific Journals, is a crucial factor in

transforming the landscape of scientific publications in Angola. The fact that the University Óscar Ribas has established a cooperation agreement with Redalyc AmeliCA is an opportunity that is being well-utilized to develop an ecosystem of scientific journals in Angola. The process of creating the Angolan network of scientific journals is underway, a cooperation platform that could enable resource sharing, synergy for greater robustness of journals, and global visibility and relevance.

4. The Reality of the Scientific Journal of Clínica Sagrada Esperança

The Scientific Journal of Clínica Sagrada Esperança, at the moment I speak, is undergoing a substantial change in its publication format, transitioning to digital publication while retaining its path as a print journal. This journal has been in existence since 2008 and has experienced various interruptions due to the dynamic processes of the world and the ecosystem around it. Access to our print publications is free for both readers and authors, with no charges for the administrative processing costs of articles. In this context, we can consider ourselves a Diamond Open Access scientific journal.

However, challenges arise regarding the competitiveness of this journal. It is the oldest operating health-specialized journal in the country. The small ecosystem of scientific production that fueled the journal experienced a significant setback with Covid-19, affecting its regular publication to date. Another aspect limiting its reach is its limited circulation as a printed scientific journal. With the upcoming digital edition, we aspire to achieve a broader reach, increased demand, and more regular editions.

5. Regarding the participation of the Angolan delegation in the Global Diamond Open Access Summit 2023

Angola was represented at the highest level, with a delegation led by the Secretary of State for Science and Innovation of the Angolan Government. The delegation included University Rectors and Editors of scientific journals. For many members, this was an opportunity to address Diamond Open Access issues directly. It was possible to raise awareness about the need

for public funding to stimulate the promotion, support, and development of Diamond Open Access scientific journals.

Overall, Angola's participation allowed for a better understanding of the processes inherent in the interoperability of global Diamond Open Access initiatives and the opportunities for scientific journals and publishers of technical and scientific works in the country to collaborate with these initiatives. This collaboration aims to strengthen the quality of their processes to increase their relevance both locally and globally.

At the end of this important Summit, the Angolan representatives proposed to:

- Implement a collective action in the spirit of the UNESCO Recommendations and BOAI 20 years on Open Science, where Equity, Sustainability, Quality, and Usability are fundamental pillars;
- Encourage the Government to embrace open science as a common public good in the National Policy for Science, Technology, and Innovation;
- Strengthen the process of approval, publication, and dissemination of the National Open Access Policy;
- Advocate for public funding to establish a national infrastructure supporting and promoting the development of publishers and scientific journals, aiming for their visibility and competitiveness;
- Raise awareness among the Angolan community of publishers of technical and scientific works about the importance of open access to quality scientific information;
- Reinforce actions towards the promotion and use of the Angolan Open Access Repository;
- Stimulate and strengthen collaboration, both internally and externally, particularly with regional and global organizations leading in the dissemination of science in Diamond Open Access.

In conclusion, we can assert that public funding is crucial to sustain, promote, and develop journals that adopt the Diamond Open Access publishing model. On the other hand, the Diamond Open Access Summit has raised awareness among Angolan researchers, editors, and university professors about

the various economic models of scientific communication worldwide. The current model adopted by all Angolan journals is Diamond Open Access. Strengthening financial measures for publishers and companies owning scientific journals is necessary to create infrastructure that promotes and disseminates the registration, certification, and archiving of scientific articles and journals.

Acknowledgments:

We extend our gratitude to Dr. Rui Pinto, Chairman of the Board, and the Board Members of Clínica Sagrada Esperança for their support in participating in the summit.

Funding:

The participation in the Diamond Open Access Summit was funded by Clínica Sagrada Esperança.

References

- Abraham, S., Ayris, P., Björnshauge, L., Buhr, C.-C., Carroll, M., Chan, L., Cochrane, T., Cuplinskas, D., Dacos, M., Dupuis, M., Fitzpatrick, K., Guédon, J.-C., Hagemann, M., Harnad, S., Jacobs, N., Joseph, H., Kiley, R., Kuchma, I., Neylon, C., ... Velterop, J. (2012). *BOAI10 Portuguese (Brazilian) Translation* (C. Rossini, Trad.). <https://www.budapestopenaccessinitiative.org/boai10/portuguese-brazilian-translation/>
- Caballero-Rivero, A., Sánchez-Tarragó, N., & Santos, R. N. M. (2019). Práticas de Ciência Aberta da comunidade acadêmica brasileira: Estudo a partir da produção científica. *Transinformação*, 31. <https://doi.org/10.1590/2318-0889201931e190029>
- FUNDECIT - *Fundação para o Desenvolvimento Científico e Tecnológico*. (2023). https://fundecit.ao/quem_somos.aspx
- Garcia, L. P., & Boing, A. F. (2021). Desafios para a sustentabilidade dos periódicos científicos brasileiros e do Programa SciELO. *Ciência & Saúde Coletiva*, 26, 5183–5186. <https://doi.org/10.1590/1413-812320212611.3.10652021>
- Gungula, E. (2023). Angola and its participation in the Global Summit on Diamond Open Access: Opportunities and chal-

- lenges for Higher Education Institutions. *SAPIENTIAE: Revista de Ciências Sociais, Humanas e Engenharias*, 9(1), 3–4.
- Open access. (2023). Em Wikipedia. https://en.wikipedia.org/w/index.php?title=Open_access&oldid=1186253772
- Pontika, N., Knoth, P., Cancellieri, M., & Pearce, S. (2015). *Fostering Open Science to Research using a Taxonomy and an eLearning Portal*. Em *iKnow: 15th International Conference on Knowledge Technologies and Data Driven Business*. Graz, Austria. Graz.
- Rezende, L. V. R., & Abadal, E. (2020). Estado da arte dos marcos regulatórios brasileiros rumo à Ciência Aberta. *Encontros Bibli: revista eletrônica de biblioteconomia e ciência da informação*, 25, 1–25.
- Silveira, L. da, Ribeiro, N. C., Santos, S. R. de O., & Silva, F. C. C. da. (2021). Novos horizontes da taxonomia da Ciência Aberta: Uma perspectiva de pesquisadores brasileiros. *Ciência da Informação Express*, 2, 1–7.
- Vicente-Saez, R., & Martinez-Fuentes, C. (2018). Open Science now: A systematic literature review for an integrated definition. *Journal of business research*, 88, 428–436.