Biblios
ISSN 1562-4730 (online)

Current status of Diamond Open Access journals in Peru: an overview of open science practices

Situación actual de las revistas de Acceso Abierto Diamante en el Perú: una visión general de las prácticas de ciencia abierta

Situação atual das revistas Acesso Aberto Diamante no Peru: uma visão geral das práticas de ciência aberta

Joel Alhuay-Quispe
Universidad Nacional Mayor de San Marcos, Lima, Peru

ORIGINAL

Abstract

Objective. This article aims to assess and describe the policy editorial characteristics and open science practices by Peruvian scientific journals published under the diamond open access model, available in electronic format. **Method.** Descriptive study based on a sample of 223 journals qualified and abstracted in SciELO Peru, Latindex 2.0, DOAJ and MIAR. **Results.** Results show that Social and Medical Science areas are best represented, with bi-annual and triannual frequency, respectively. Private sector of publishers outnumbers public ones with the highest concentration in Lima as a publication place. **Conclusions.** Peruvian journals are still beginning to adopt some open science policies and practices, such as repository or self-archiving policies, digital preservation policies, and open citations practices. Based on background research, this paper reports first results about diamond publishing and scholarly electronic journals published in Peru.

Keywords: scholarly journals, diamond open access, editorial policies, peruvian journals, open science

Resumen

Objetivo. Este artículo tiene como objetivo evaluar y describir las características de política editorial y prácticas de ciencia abierta de las revistas científicas peruanas publicadas bajo el modelo de acceso abierto diamante, disponibles en formato electrónico. **Método.** Estudio descriptivo a partir de una muestra de 223 revistas registradas en SciELO Perú, Latindex 2.0, DOAJ y MIAR. **Resultados.** Las áreas de Ciencias Sociales y Médicas son las mejor representadas, con frecuencia semestral y trianual, respectivamente. Las editoriales del sector privado superan a las públicas con mayor concentración en Lima como lugar de publicación. **Conclusiones.** Las revistas peruanas aún están comenzando a adoptar algunas políticas y prácticas de ciencia abierta, tales como políticas de repositorio o autoarchivo, políticas de preservación digital y prácticas de citaciones abiertas. Basado en la investigación de antecedentes, este trabajo reporta los primeros resultados sobre la publicación en diamante y las revistas electrónicas académicas publicadas en Perú.

Palabras clave: revistas académicas, acceso abierto diamante, políticas editoriales, revistas peruanas, ciencia abierta

Resumo

Objetivo. Este artigo tem como objetivo avaliar e descrever as características da política editorial e das práticas de ciência aberta das revistas científicas peruanas publicadas sob o modelo de acesso aberto diamante, disponíveis em formato eletrônico. **Método.** Estudo descritivo com base em uma amostra de 223 periódicos registrados no SciELO Peru, Latindex 2.0, DOAJ e MIAR. **Resultados.** As áreas de Ciências Sociais e Ciências Médicas são as mais bem representadas, com frequência semestral e trienal, respectivamente. As editoras do setor privado superam as editoras do setor público, com a maior concentração em Lima como local de publicação. **Conclusões.** As revistas peruanas ainda estão começando a adotar

algumas políticas e práticas de ciência aberta, como políticas de repositório ou autoarquivamento, políticas de preservação digital e práticas de citação aberta. A partir de uma pesquisa de base, este artigo relata os primeiros resultados sobre a publicação de diamantes e periódicos acadêmicos eletrônicos publicados no Peru.

Palavras-chave: revistas acadêmicas, acesso aberto diamante, políticas editoriais, revistas peruanas, ciência aberta

1 Introduction

Electronic publication has certain advantages over print publishing which has been at the heart of the scholarly communication process for more than 300 years (Harter & Park, 2000). Since the 1990s, Open Access (OA) initiatives have emerged alongside the establishment of the World Wide Web, placing scientific publishing at the center of significant transformations. These transformations can be divided into two stages: first, the shift from printed to electronic journals, or the coexistence of both formats; and second, the rise of the Open Access movement, as endorsed by the Budapest Declaration (Sánchez-Tarragó et al., 2016). The interest on evaluation and quality of scientific journals is growing in Spain and Latin America, and an example of this is the intense activity that is taking place given by many publications that have appeared and indexed since the 20th century beginning (Buela-Casal & López, 2005). The project SciELO (Scientific Electronic Library Online) started as a platform aggregating 275 open access journals, since launching in 1997 is considered the main system for journal quality evaluation in Latin America countries (Appel et al., 2018). In this region, differently from North American and European countries where journals published by commercial publishers are predominant, the publishing of scientific journals has mostly been an initiative of the academic community itself (Appel & Albagli, 2019).

In Peru, from the first journals published at the beginning of the 20th century, two are still available in electronic format. Mercurio Peruano (1918), originally edited by Víctor Andrés Belaunde together with a group of intellectuals, is considered the cultural journal with the longest trajectory in Peru (Zeta Pozo, 2019). It is currently published at the University of Piura. Also the Amauta journal (1926), which was edited by José Carlos Mariátegui and currently has a digital newspaper library website as part of the Mariátegui Archive (http://hemeroteca.mariategui.org). Other Peruvian scholarly journals that appeared in the first half of the last century, and which are still published, are few. Among them: *Anales de la Facultad de Medicina* (1918) and *Letras* (Lima) (1929), both published in the faculties of Human Medicine, and Letters and Human Science of the Universidad Nacional Mayor de San Marcos, respectively. Also, *Revista de la Sociedad Química del Perú* (1934), published by the institution of the same name. Of these three journals, all are currently indexed in SciELO Peru and only one, also in another international index: *Letras* (Lima) is indexed in the ESCI collection of Web of Science.

Currently, Peruvian journals published are open access and use electronic via as primary publication format; however, there is little research that reports the situation of electronic journals. Based on the reviewed background, the main objective of this article aims to answer the research question: What is the current status of editorial characteristics and practices on open science of Peruvian scientific journals published in electronic format?

1.1 Routes of Open Access models

At the end of the last century, the Open Access movement emerged as an alternative means of disseminating scientific production, enabling full-text availability for reading manuscripts. The evolution of Open Access identified four main focuses: Gold, Green, Hybrid, and Bronze. These pathways of publication are referred to as "routes" of open access. The “green route” involves publishing manuscript versions (copies) through digital repositories; while the "gold route” entails publishing articles in electronic journals with a publication fee; the “bronze route" implies that articles are freely accessible on the publisher's page but without a clearly identifiable license; and “hybrid route” occurs when articles are freely available under an open license in a subscription-based access journal (Alhuay-Quispe & Bautista-Ynofuente, 2021). Additionally, *Platinum* open access is singled out, distinguished by the absence of any fees charged to both authors and readers, and where funding for these journals is provided by government and research funding institutions (Moskovkin et al., 2022). Instead, the

Diamond route emerges because the scientific community, in favor of the original spirit of open access, decided to give a different name to open access without any payment, leaving the golden route to companies or publishers with publishing fees: "the diamond will always be more valuable than gold" (Uribe Tirado, 2023).

At the beginning of this century, the OA movement became international with three major statements: the Budapest in 2002 also Bethesda and Berlin in 2003. The Budapest Open Access Initiative or BOAI Declaration is its most famous definition as scientific literature that is publicly available online, free of charge, unrestricted, discoverable, free of copyright and licensing restrictions, and available for reuse (Butler et al., 2023). More recently, in September 2018 and revised in May 2019, “Plan S” is launched as an initiative by a European consortium that involves 10 principles to dictate scholarly publishing in open access journals, open access platforms, or made immediately available through open access repositories without embargo (Debat & Babini, 2020). The principle 8th of Plan S says: “The Funders do not support the ‘hybrid’ model of publishing. However, as a transitional pathway towards full Open Access within a clearly defined timeframe, and only as part of transformative arrangements, Funders may contribute to financially supporting such arrangements (European Science Foundation, 2024). Transformative Agreements change the focus of scholarly journal licensing from a subscription model to an OA publishing fee mode, shifting costs from traditional subscriptions to fees that incorporate read and publish cost elements (Moskovkin et al., 2022).

1.2 Review of Ibero-American scholarly journals

Regional and local journal qualification projects appeared during the first decade of the 21st century such as the *Biblioteca Virtual de Salud* (BVS) (Virtual Health Library) of BIREME (WHO/PAHO) with the index of *Literatura Latinoamericana y del Caribe en Ciencias de la Salud)* (LILACS) (Latin American and Caribbean Literature in Health Sciences) and the index of *Literatura Peruana en Ciencias de la Salud* (LIPECS) (Peruvian Literature in Health Sciences), which favored the visibility of Peruvian scholarly journals in the early days of the Internet. The SciELO project was another of the initiatives that promoted the positioning of Peruvian journals, with the only difference that the previous indexes were thematic while SciELO, even though it began with coverage based on health journals, later expanded the coverage to journals on other topics: Social Science, Agricultural Science, Engineering and Linguistics, Letters and Arts.

SciELO's national node in Peru was released in May 2004 and was certified as the official web portal in 2013. Since then, SciELO Peru has progressively rated a reduced number of Peruvian journals over time: 18 journals in 2014, 29 in 2017, 34 journals in 2020 and 49 titles until 2023. In addition to SciELO, another widely recognized and accepted system in the region is, the formerly called Latin American Index of Serial Scientific Publications, but commonly known as Latindex. The evaluation of new journals to be included in Latindex uses certain requirements according to the nature of the registry, *directory*, where it is required to send information about the journal and copies, or *catalog*, which implies compliance with specific criteria according to the publication format: electronic or printed. During the years 2002-2017, the evaluation criteria for journals in both formats were used. However, since 2018 exclusively journals published in electronic format have been evaluated. Peruvian journals in the Latindex directory compared to those found in catalog 2.0 is abysmal, considering that discontinued journals can be found in the directory. The number of journals that are published in electronic format triples the number of the catalog. This indicates that about a hundred Peruvian journals could enter the registry as long as they meet the criteria.

At a global level, there are two systems of coverage for scientific literature that predominate in academia and in the market. These are Web of Science and Scopus, from which journal indexes or journal rankings are derived, Journal Citation Reports (JCR) and Scimago Journal Ranking (SJR), respectively. Although there is a difference in the thematic coverage of the journals that index these databases of scientific literature, similarly, the geographical coverage of journals’ origin. Therefore, to know the status regarding the number of journals belonging to Latin American countries with respect to Spain, it is necessary to refer to the JCR and SJR journal classification systems. The outlook is favorable for the region, at least in Scopus, where more than a hundred journals were included in recent years, unlike Web of Science, where only a few journals were added. And although a slow growth is observed in WoS, these data belong to the main collections that support the annual editions of the *JCR: Science Citation Index Expanded and Social Science Citation Index*, but if we refer to the collection of emerging journals, only journals that correspond to the areas of Arts and Human Science from Ibero-American countries, the sum amounts to 442 titles (Prieto Gutiérrez & Alhuay-Quispe, 2020).

1.3 Background on Peruvian journals evaluation

Previous studies in which Peruvian scholarly journals are evaluated, in any of their dimensions and aspects of study, show that in recent years the interest to learn about the status of the journals published in the country has increased, with a notable predominance towards the study of the journals on Medicine (Table 1).

Table 1

Previous research that evaluated Peruvian journals

Sample	Subject coverage	Reference
2 journals	Literature	Tauro (1938)
11 journals	Human and Social Science	Podesta (1977)
50 journals	Health Science	Balarezo Gerstein (2005)
62 journals	Health Science	Huamaní & Pacheco-Romero (2009a)
8 journals	Health Science	Huamaní & Pacheco-Romero (2009b)
10 journals	Health Science	Huamaní (2010)
23 journals	Health Science	Mayta Tristán (2012)
24 journals	Social Science	Morales Morante (2016a)
25 journals	Social Science	Morales Morante (2016b)
138 journals	All areas	Santillán-Aldana et al. (2017)
324 journals	All areas	Yance-Yupari (2018)
11 journals	Health and veterinary science	Arroyo-Hernández & Huarez (2019)
8 journals	All areas	Acosta et al. (2020)
7 journals	Dentistry	Salazar Villavicencio et al. (2022)
154 journals	All areas	Chávez Sánchez (2022)
55 journals	Health Science	Alhuay-Quispe (2022)

Note. Source: Own authors. [*Table description*] Table 1: Previous research that evaluated Peruvian journals: Table summarize studies of Peruvian scholarly journals by subject area and number of journals analyzed, from 1938 to 2022. [*End of description*].

The evaluation of scholarly journals can be carried out from distinctive approaches: theoretical-ontological, from the foundations of science communication; methodological, based on bibliometric research methods and techniques; pragmatic, based on the fulfillment of certain criteria or standards established by groups of editors, professional associations and research institutions (i.e., the academy), and formal aspects, by the parameters used in the journal rating systems and a base of scientific literature with the best coverage at the global and regional level.

Aspects of formality are best known and most widely used among publishers and managers of scientific journals, since they point towards an optimal and necessary scenario, hence the requirement to assume characteristics closest to normal. In this sense, according to López-Cózar et al. (2006), the normalization mechanisms of scientific journals contribute to the fulfillment of the journal's role as a formal communication channel for research as it facilitates the knowledge transfer process.

On the other hand, the process of selection and evaluation of the manuscripts guarantees the quality of the research published in the journals, which is why this element is understood as a contributing factor to improve the quality of the journal itself. According to Jones et al. (1996), peer review provides an alternative measure of journal quality as it allows experienced researchers [i.e., peer referees] to evaluate the quality of journals based

on their knowledge and experience. In general, in the evaluation of scholarly or research serial journals, indicators of qualitative and quantitative scope are used, among which following dimensions are considered:

a) Responsibilities of the publisher activity, editorial board and referee committee

b) Formal presentation and quality of the manuscripts received, evaluated, and published

c) Presence of the website or electronic platform on the internet and on social media

d) Repercussion of the journal and published articles, through citation indexes

Regarding this last aspect, the positioning of scholarly serial publications in Peru through journal evaluation indexes was not seen as the way for the visibility of the Peruvian journals by the academics and institutions that published this type of documents. However, in the last decades of the previous century with the expansion of the *Index Medicus* (now Medline), an index of biomedical scientific literature journals, several Peruvian journals were included in what is now called "the old Medline". There are five original journals from the first five years of the previous century registered in this indexing platform: *Revista médica peruana* (1929), *Revista farmacéutica peruana* (1932), *Revista del Hospital del Niño* (1939), *Archivos peruanos de patología y clínica* (1947), *Revista de la sanidad de la Policía Nacional del Perú* (1947).

2 Methods

The methods used in this study include a descriptive design with non-probabilistic sampling to analyze the open science policies and practices adopted by journal titles selected from trusted sources of scholarly journals published by Peruvian institutions under the diamond open access model.

2.1 Research design

Descriptive and observational study and by treatment of the variables in time, corresponds to a sectional or cross-sectional investigation.

2.2 Sampling

The analysis units are the scientific journals whose country of publication is Peru, and which are registered in the regional systems of evaluation and classification of widely recognized journals in the Ibero-American area:

a) Latindex 2.0, Regional Online Information System for Scientific Journals from Latin America, the Caribbean, Spain and Portugal.

b) DOAJ, Directory of Open Access Journals.

c) MIAR, Information Matrix for the Analysis of Journals.

d) SciELO, Scientific Electronic Library Online - Peru.

Sample selection was intentionally designed to ensure the broadest coverage of journal titles included in sources with open access journals, based on background studies. The final sample selection was made according to the following inclusion criteria:

a) Registered in at least one of the sources used

b) Online publishing platform, website or OJS system

c) Journal with the most recent published issue including up to year 2023 as latest available.

d) Journal has DOI identifier.

The identified sample, which can be understood as the reference population of the study, from the four data sources, and according to the inclusion criteria, corresponds to 223 Peruvian scientific journals with an online publication system.

2.3 Data collection

The journals were recovered mainly from Latindex, extracting the publication validity data and the classification in the catalog, not only the appearance of the record in the Latindex directory as a method used in another study (Santillán-Aldana et al., 2017). Another resource used was the DOAJ, in which the delimiter of the field "country" (Country of Publisher) of the system search engine was added to the results filter "journals" (Journal). Also, source of data, the SciELO Peru portal was consulted based on the list of journals according to the alphabetical order on the site. Finally, MIAR supplemented the identification data and editorial characteristics of journals that were not available in the other sources.

2.4 Data analysis

The research data was collected and statistical analysis carried out in MS Excel 2010. For data processing and analysis following dimensions and variables used shows in Table 2:

Table 2

Criteria for the analysis of variables and data sources

Dimensions	Variable	Source
Editorial characteristics	Publication areas (8 subjects)	Latindex
	Periodicity	Journal site, MIAR
	Publisher type	Journal site, Latindex
	Publication place	Journal site, MIAR
	Electronic publication format	Journal site, DOAJ, SciELO
	Plagiarism policy	Journal site, DOAJ, MIAR, SciELO
	Type of review process	Journal site, DOAJ, MIAR, SciELO
Policies and practices on open science	Licensing and author copyright	Journal site, DOAJ, SciELO
	Repository or self-archiving policy	Journal site, DOAJ, SciELO
	Digital preservation policy	Journal site, DOAJ, SciELO
	Open citations practices	Journal site, DOAJ, SciELO

Note. Source: Own authors. [*Table description*] Table 2. Criteria for the analysis of variables and data sources: Table summarize two dimensions and variables and sources. [*End of description*].

3 Results

The results section presents the findings about policies and open science practices adopted by 223 Peruvian scientific journals analyzed which publish under open access diamond model.

3.1 Editorial characteristics

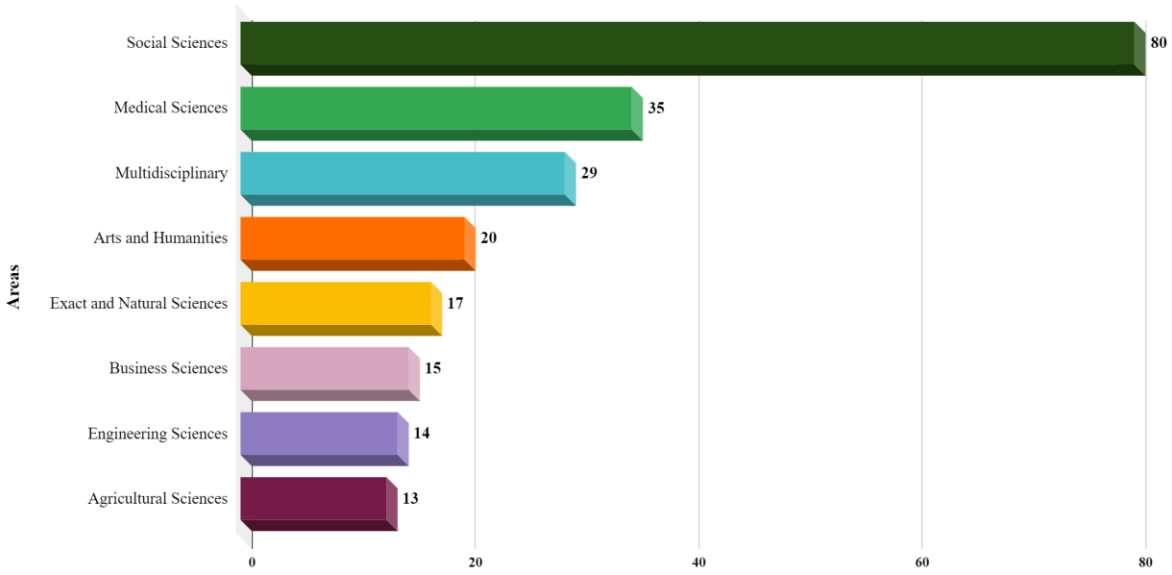
This section present results about the main editorial characteristics of 223 Peruvian scholarly journals sampled in this study.

3.1.1 Publication areas and periodicity

The journals in the areas of Social Science (36%) and Medical Science (15%) predominate among the eight subject areas in which the studied journals are published, while the Agricultural Sciences, Engineering Sciences and Business Sciences are less represented with nearly 6% each (Figure 1, Table 3).

Figure 1

Journal by subject areas



Note. Source: Own authors. [*Image description*] Figure 1. Journal by subject areas: Social sciences has 80 titles, 35 beelongs to Medical sciences, 29 are multidisciplinary, 20 are from Arts and Humanities, 17 are Natural Sciences, 15 are Bussiness, 14 are Engineering, 13 are Agricultural. [*End of description*].

Table 3

Journals by publication area and periodicity

Areas	Issues per year					Total	
	Annual	Other	3 issues	2 issues	4 issues	n	%
Arts and Humanities	5			15	15	20	8,97%
Agricultural Sciences		1	2	8	2	13	5,83%
Engineering	3			11		14	6,28%
Business Sciences	1		2	11	1	15	6,73%
Natural Sciences	1		1	13	2	17	7,62%

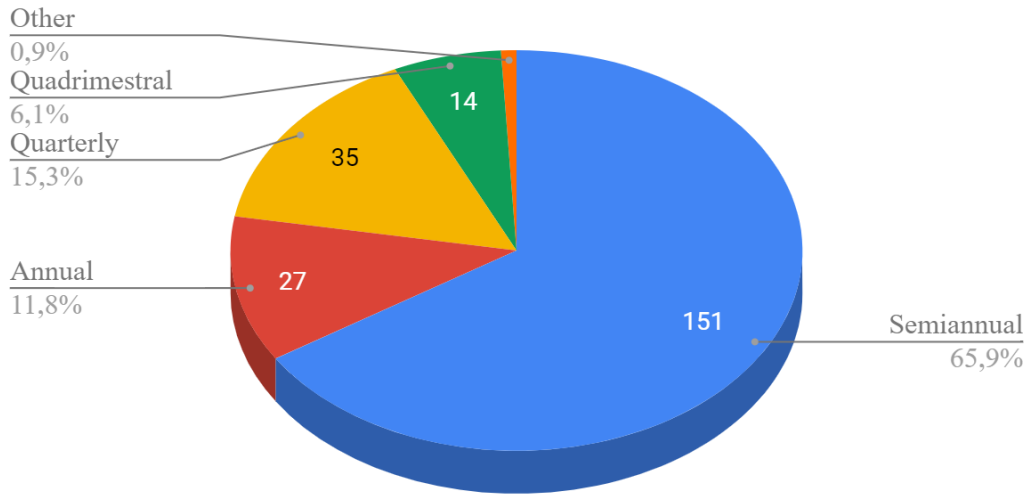
Health Sciences	1		3	16	15	35	15,70%
Social Sciences	11	1	3	62	3	80	35,87%
Multidisciplinary	5		3	15	6	29	13,00%
	27	2	14	151	29	223	100,00%

Note. Other is “Continuous” and “Bimonthly”. Source: Own authors. [*Table description*] This Table 3 of Journals by publication area and periodicity includes areas such as Arts and Humanities, Agricultural Sciences, Engineering, Business Sciences, Natural Sciences, Health Sciences, Social Sciences, Multidisciplinary. [*End of description*].

While Figure 2 shows that the semiannual frequency is the most representative for Peruvian journals, whereas other frequencies, such as continuous and bimonthly, barely appear for some only title.

Figure 2

Percentage of titles by periodicity frequency



Note. Source: Own authors. [*Image description*] Figure 2. Percentage of titles by periodicity frequency: 151 titles are semiannual, 27 titles are annual, 35 are quarterly, 14 are quadrimestral. [*End of description*].

3.1.2 Publisher type and place

In Peru, the departments are the first units of geopolitical structure that determine the internal territorial limits, then in smaller geographic coverage are the provinces and districts, but for the study the one with the greatest scope is taken. Table 4 show a large concentration of journals in the country's capital (Lima), although the journals of institutions and universities in northern Peru also have a large presence in the departments of La Libertad (4,9%), Lambayeque (4%), Huanuco (4%) and in the south, Tacna and Puno with 3.6% and 3.1%, respectively.

Table 4

Peruvian journals by location and sector of publisher

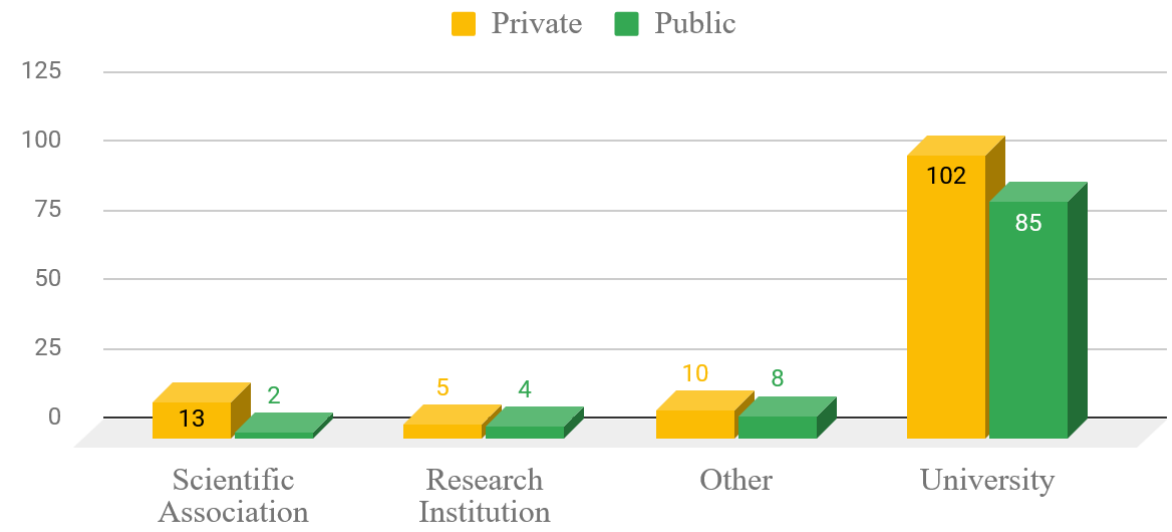
Departament	Private		Public		Total	
	n	%	n	%	n	%
Amazonas	0	0,0%	3	1,4%	3	1,4%
Áncash	0	0,0%	1	0,5%	1	0,5%
Arequipa	2	0,9%	0	0,0%	2	0,9%
Ayacucho	1	0,5%	2	0,9%	3	1,4%
Cajamarca	1	0,5%	1	0,5%	2	0,9%
Cusco	4	1,8%	1	0,5%	5	2,2%
Huancavelica	0	0,0%	5	2,2%	5	2,2%
Huánuco	1	0,5%	8	3,6%	9	4,0%
Ica	0	0,0%	2	0,9%	2	0,9%
Junín	2	0,9%	2	0,9%	4	1,8%
La Libertad	5	2,2%	6	2,7%	11	4,9%
Lambayeque	8	3,6%	1	0,5%	9	4,0%
Lima	91	40,8%	52	23,3%	143	64,1%
Loreto	2	0,9%	0	0,0%	2	0,9%
Piura	1	0,5%	0	0,0%	1	0,5%
Puno	0	0,0%	7	3,1%	7	3,1%
San Martín	2	0,9%	3	1,4%	5	2,2%
Tacna	4	1,8%	4	1,8%	8	3,6%
Tumbes	0	0,0%	1	0,5%	1	0,5%

Note. Department is a geopolitical division in Peru consisting of 25 regions. Source: Own authors. [*Table description*] The Table 4 summarize Peruvian journals by location and sector of publisher including Departament as location and Private or Public. [*End of description*].

In terms of the publishing house sector and type of institution, there is a greater concentration in universities (84% of the total), with private institutions accounting for 45% and public entities for 38% (Figure 3).

Figure 3

Journals by publisher type



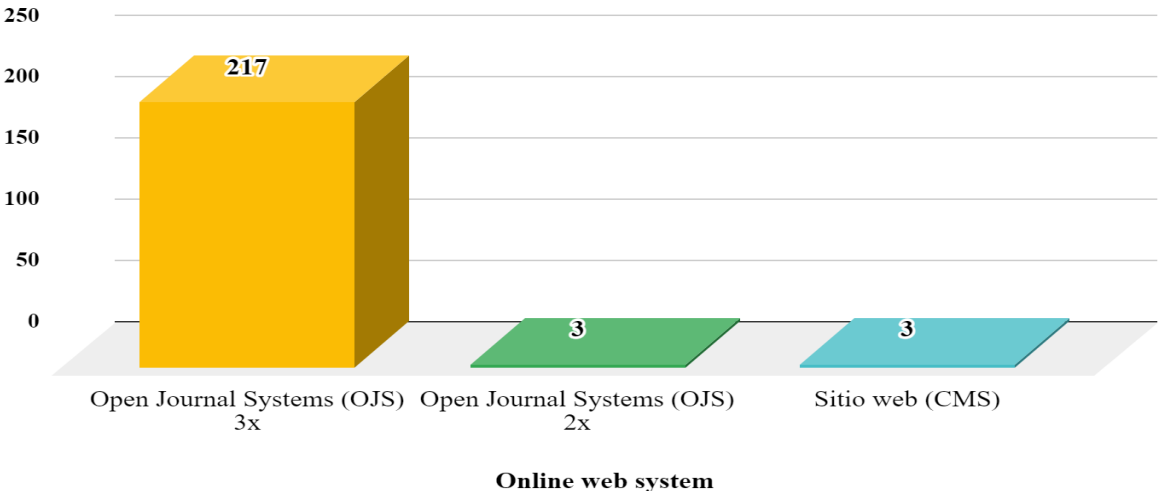
Note. Source: Own authors. [*Image description*] Figure 3. Journals by publisher type: 102 belongs to private universities, 85 titles belongs to public, 10 and 8 belongs to other institutions private and public, 13 and 2 belongs to scientific association private and public, and 5 and 4 are research entities private and public. [*End of description*].

3.1.3 Electronic publication system

Google Scholar is a primary source for assessing scientific impact quickly through the technological platforms used by the analyzed electronic journals, but it has certain limitations if the journal does not employ proper practices to ensure web visibility and content indexing. However, although the web platforms used by journals to distribute their content are not always the same, only a minority of journals use a web content system different from the OJS software developed by the Public Knowledge Project (PKP) of the Canadian university, Simon Fraser. Most of the journals (97%) use the most recent version of OJS 3x (Figure 4).

Figure 4

Publication systems used by journals



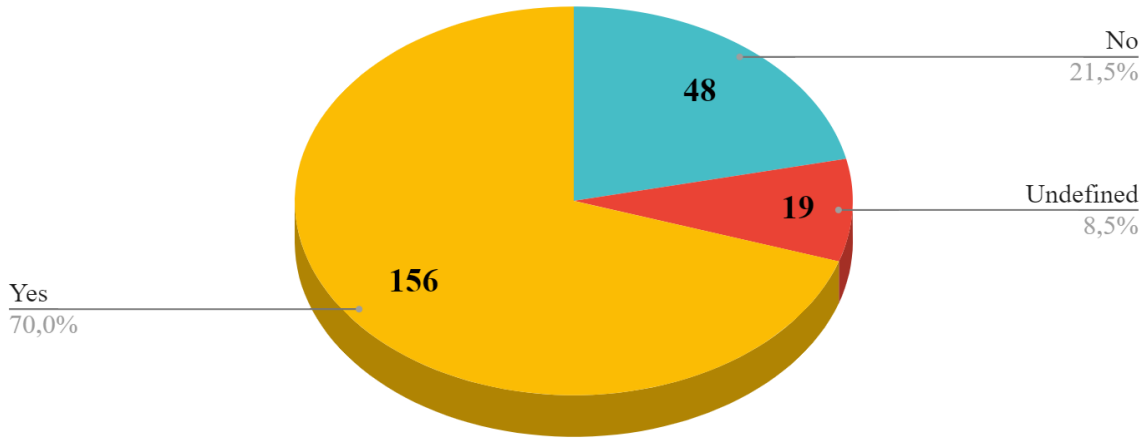
Note. Source: Own authors. [*Image description*] Figure 4. Publication systems used by journals: 217 titles have OJS systems version 3x, 3 titles has OJS 2x and 3 titles has other CMS. [*End of description*].

3.1.4 Plagiarism policy

The policies to reduce suspicions of unethical practices in publications involves utilizing anti-plagiarism software tools and procedures for detecting manuscripts with potential signs of plagiarism. Figure 5 shows that 70% of Peruvian journals have a clear anti-plagiarism policy, while 21.5% have not adopted any plagiarism policy.

Figure 5

Plagiarism policy used by journals



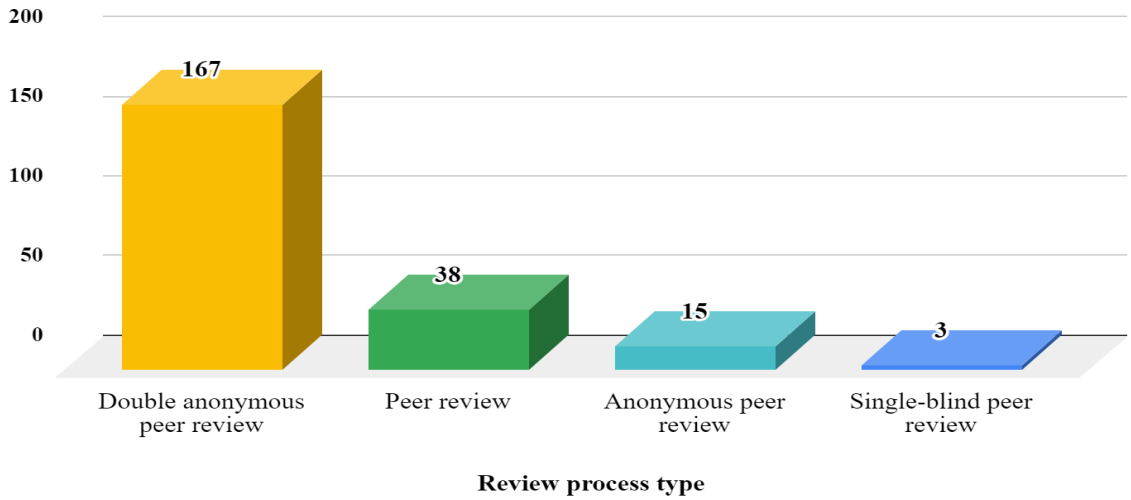
Note. Source: Own authors. [*Image description*] Figure 5. Plagiarism policy used by journals: yes is equal to 70%; No is 21.5%, 8.5% is undefined. [*End of description*].

3.1.5 Type of review process

The peer review procedures and policies ensure that journals select the highest quality articles, with editorial teams supporting these processes. Peruvian journals have implemented various review policies, with 75% using double-blind review and 17% using peer review, though it is unclear whether these are double or single-blind (Figure 6).

Figure 6

Type of peer review used by journals



Note. Source: Own authors. [*Image description*] Figure 6. Type of peer review used by journals: 167 titles use double peer review, 38 titles use peer review, 15 use anonymous peer review, 3 single blind peer review. [*End of description*].

3.2 Policies and practices on open science

This section describes the findings around policies and practices on open science in 223 Peruvian scholarly journals analyzed which are publishing under open access diamond route.

3.2.1 Licensing and author copyright

The use of Creative Commons licenses in scientific journals under the open access model facilitates the dissemination of published content through freely accessible use of the publications, while providing guidelines for both readers and authors. Table 5 shows that most journals use some type of licensing with Creative Commons CC-BY being the most open license, employed by 66% of the titles while only four journals (1.8%) do not use any license.

Also, author copyright policies determine whether authors retain their rights to the works or if they must transfer them to the journal or publisher for the publication of the manuscripts. In Figure 7, the data shows that 153 journals (69%) allow authors to retain their rights without restrictions, while 41 journals (18%) require the transfer of rights, and only 29 journals (13%) do not clearly specify this in their editorial policies.

Table 5

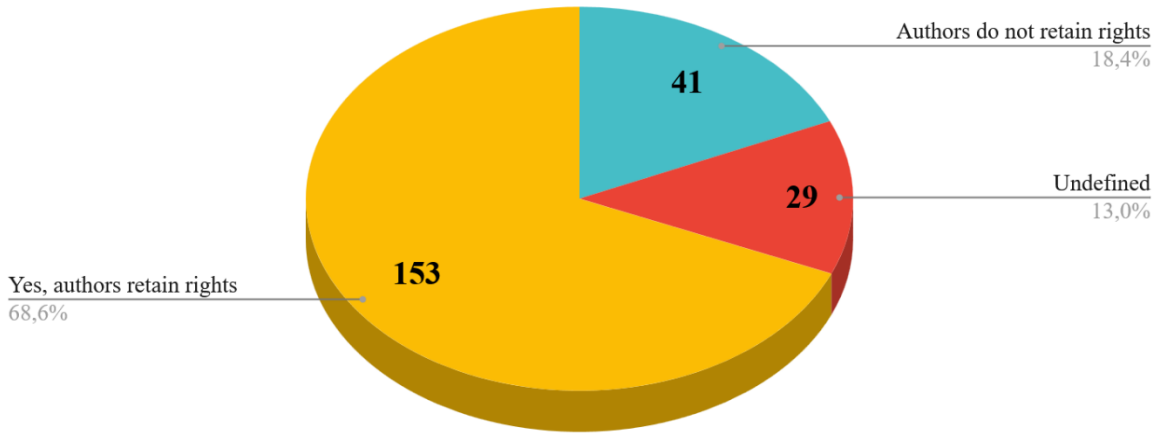
Licensing type used by journals

Creative Commons License	n	%
CC BY	148	66,4%
CC BY-NC	34	15,2%
CC BY-NC-SA	23	10,3%
CC BY-NC-ND	12	5,4%
Undefined	4	1,8%
CC BY-ND	1	0,4%
CC BY-SA	1	0,4%
Total	**223**	**100,0%**

Note. Source: Own authors. [*Table description*] This table five describes the types of licensing used by journals analyzed as Creative Commons License:CC BY, CC BY-NC, CC BY-NC-SA, CC BY-NC-ND, Undefined, CC BY-ND, CC BY-SA. [*End of description*].

Figure 7

Author copyrights policy used by journals



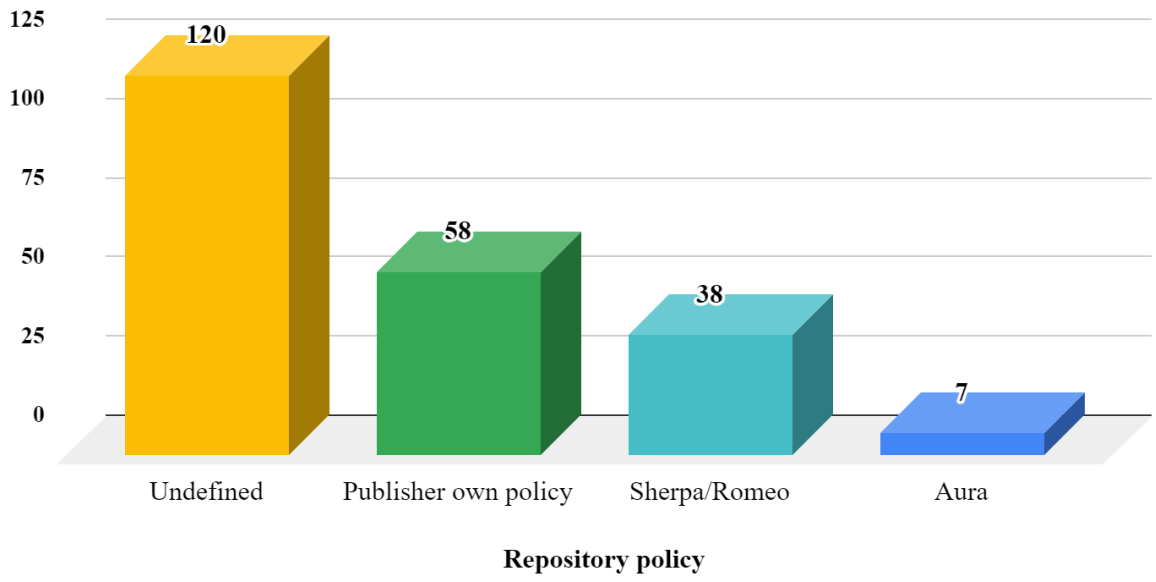
Note. Source: Own authors. [*Image description*] Figure 7. Author copyrights policy used by journals: 153 titles "yes" adopt authors retains rights, 41 titles do not adopts, 29 titles are undefined. [*End of description*].

3.2.2 Repository or self-archiving policy

The repository or self-archiving policies outline the guidelines for depositing research outputs in institutional or subject-specific repositories. More than half of Peruvian journals (54%) do not maintain a clear, regulated policy that defines the guidelines for depositing preprints, postprints, or final versions (Figure 8).

Figure 8

Repository self-archiving policy used by journals



Note. Source: Own authors. [*Image description*] Figure 8. Repository self-archiving policy used by journals: 120 titles is undefined, 58 titles has own policy, 38 titles adopts Sherpa/Romeo and 7 use AURA. [*End of description*].

3.2.3 Digital preservation policy

Digital preservation services and policies are strategies and systems designed to ensure the long-term accessibility and integrity of digital content. Peruvian journals are using several services such as LOCKSS, CLOCKSS, PKP PN, the Internet Archive, and their own publisher policies, but most journals do not use any digital preservation resources or services (Table 6).

Table 6

Digital preservation services and policies

Preservation Service	n	%
Undefined	156	70,0%
LOCKSS, CLOCKSS	21	9,4%
Publisher own	21	9,4%
LOCKSS	14	6,3%
PKP PN	5	2,2%
LOCKSS, PKP PN	3	1,3%
CLOCKSS	2	0,9%
Internet Archive	1	0,4%
Total	**223**	**100,0%**

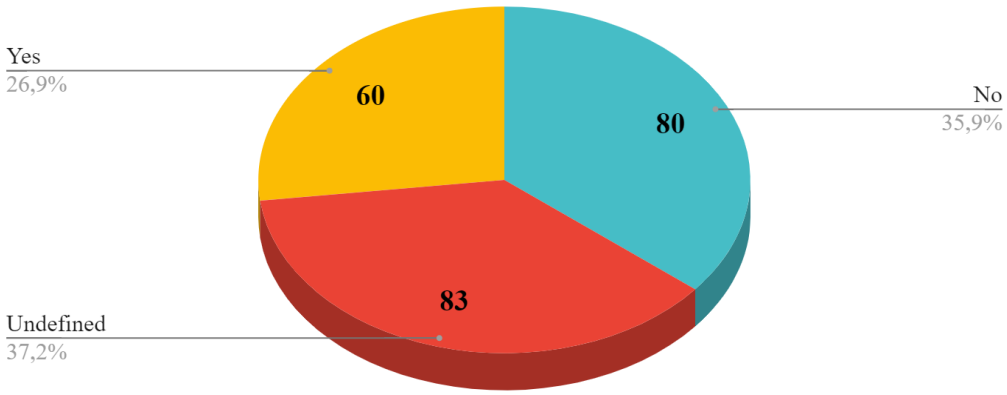
Note. Source: Own authors. [*Table description*] This table six summarize different Preservation Services such as: Undefined, LOCKSS, CLOCKSS, Publisher own, LOCKSS, PKP PN, LOCKSS, PKP PN, CLOCKSS, Internet Archive. [*End of description*].

3.2.4 Open citations practices

The open citations practices in scientific journals involve making citation data publicly accessible and reusable such as I4OC (Initiative for Open Citations) for the availability of citation data from scholarly publications in open formats. Only a quarter (27%) of Peruvian journals include and display cited references on their web platforms through OJS systems as text metadata. In contrast, the majority have not yet implemented these citation openness practices for reader use, indexing in citation resources like OpenCitations, or tracking in third-party services such as Google Scholar (Figure 9).

Figure 9

Open Citation policy used by journals



Note. *Source: Own authors.* [*Image description*] Figure 9. Only a quarter (27%) of Peruvian journals include and display cited references, 36% not includes and 37% is undefined. [*End of description*].

4 Discussion

This section discusses the findings in light of previous literature with similar results and highlights how diamond open access has implications for science and public policies in Latin America and specifically in Peru.

4.1 Findings study discussion

Peruvian journals, which publish in electronic format and all under the open access model, concentrate the majority in two subject areas of publication: social science and medical science (Table 3). Comparingly, previous studies report similar results, such as Santillán-Aldana et al. (2017) which study 138 Peruvian journals in Latindex and find that the social sciences represent 29%. On the other hand, Walters and Linvill (2011), based on a sample of 663 electronic journals retrieved from the DOAJ directory, find that medical science predominates with 35%.

The data found show that nearly all of the journals sampled use a current version of the OJS system; while Yance-Yupari (2018) reports that only 22% of the Peruvian journals that he analyzed use the OJS software (OJS) in its most recent version 3, this can be explained because over the years, progressively all the journals will leave version 2 and migrate to a following version. In 2009, a study about electronic visibility of Peruvian biomedical journals, reported that some 12 out of 62 journals did not have their own website nor presence on publishing entity websites (Huamaní & Pacheco-Romero, 2009a) and other 8 medical journals were indexed in differents bibliographic sources (Huamaní & Pacheco-Romero, 2009b). At this point it is important to note that only since the second decade of the century, Peruvian journals have adopted the mixed publication format, print and electronic, while since 2020, due to the global contingency of health emergency caused by Covid-19, some Peruvian journals will stop publishing in physical format to focus on publishing online.

The findings shows that current Peruvian journals, in terms of open science practices, are still at an incipient stage, and that most titles are edited by universities, similar trends are observed in Latin America, where journals are primarily published by university institutions (Corera-Álvarez & Molina-Molina, 2016). Although local journals are supported, managed, and sponsored by their editorials as open access publications at non-cost to authors, it is possible that some publishers change their publishing model from diamond access to gold open access, incorporating APC fees. In Peru, only two journals listed in SciELO Peru include publication costs to their authors which range from 50 to 250 USD. In the context of potential changes in open science publishing in Latin America, it is necessary to investigate all stakeholders within the scientific communication system, starting with scholarly journals.

DOAJ recently announced changes to distinguish journals with open science practices introducing a label for diamond journals (DOAJ, 2025). Thus, Simard et al. (2024) suggest that is need to operationalize diamond OA in quantitative science studies, to encourage diamond access as an equitable and sustainable open access publishing model for the academic community, we must be making a distinction between true diamond journals and those that temporarily waive APCs or suppression marketing strategy to generate profits.

4.2 Open Access diamond and its implications in Latin America and Peru

Latin America is a global reference in OA practices where have implemented Open Science strategies and policies at both the country and regional levels with platforms such as SciELO, Redalyc, and "LA Referencia" through which an open access ecosystem based on green and diamond routes (De Filippo & D'Onofrio, 2019; Muñoz-Vélez et al., 2024).

In 2017, Schiermeier and Mega (2017) reports that Germany, Taiwan and Peru lost access to Elsevier journals, in a context Universities regularly complain about the rising costs of academic journals and sometimes threaten to cancel subscriptions. However, in Peru, the non-renewal was due to economic issues, as Concytec could not afford the annual subscription cost of ScienceDirect and Scopus, leading them to discontinue the subscription in 2017 (Villatoro, 2017).

In 2020, the Colombian experience stands as a pioneering case in Latin America of Transformation Agreements (TAs) between institutions and publishers in which subscription costs are reallocated to support open access publishing. Muñoz-Vélez et al. (2024) stated that three TAs were signed with Elsevier, Springer Nature and Taylor & Francis from 2022 to 2024.

Recent research has focused on open access publications either quantitative studies, projections or estimates of open access journals (Chen & Olijhoek, 2016). In a study from 400 Latin American journal editors, Sánchez-Tarragó et al. (2016) reports the majority considered that their journals are open access and are distributed for free charges on the Internet, either on portals such as SciELO, Redalyc or journal websites. However, Latin American scholarly journals are supported by non-commercial publishers and publicly funded infrastructure oriented to advance open access as the natural form of scientific communication (Debat & Babini, 2020).

5 Conclusions

In conclusion, as part of editorial characteristics, the social science area is better represented by Peruvian journals compared to those corresponding to engineering and agricultural science. In terms of appearance frequency, the semiannual is predominant among scholarly journals, with the highest incidence in the social area. Also, Lima is the place of publication with the highest concentration of publishers, with the highest frequency of private entities over public ones.

Regarding to policies for open sciences, more than half of Peruvian journals use the most permissive Creative Commons CC-BY license, and in the same proportion, they allow authors to retain their copyrights. So, most journals do not use a defined self-archiving practice for authors, nor do they have a digital preservation policy. More than three-quarters titles do not implement any digital preservation resources and policies provided by journals or their publishers. Open citation practices in the sampled journals are limited, with just over a quarter including and displaying cited references on their web platforms. Also, open science practices in Peruvian diamond electronic journals are implemented at a low to moderate stage.

Finally, this research based on different journal title sources, some of which may become inactive in the future, as occurred with REDIB which was initially considered for this study; it was ultimately excluded due to its discontinuation years ago. In future studies it is recommended to incorporate quantitative indicators at the journal level metrics and qualitative variables at the article level. This approach would enable a comprehensive characterization of the nature and evolution of Latin American scientific publishing.

References

Acosta, E. R., Marín Velásquez, T. D., & Gonzales Caycho, A. M. (2020). Revistas peruanas indexadas en Scopus: Un estudio de caso. *Revista Ciencias Pedagógicas e Innovación, 8*(1), 62-69. https://doi.org/10.26423/rcpi.v8i1.350

Alhuay-Quispe, J. (2022). Metodología para medir el índice H5 de las revistas peruanas de Ciencias Médicas. *Revista Cubana de Información en Ciencias de la Salud. 33*, Article e1983. https://acimed.sld.cu/index.php/acimed/article/view/1983/0

Alhuay-Quispe, J., & Bautista-Ynofuente, L. (2021). Repercusión altmétrica y tipo de acceso en artículos peruanos de Ciencias Sociales. *Investigación bibliotecológica, 35*(89), 91–110. https://doi.org/10.22201/iibi.24488321xe.2021.89.58369

Alhuay-Quispe, J. (2025). *Current Status of Diamond Open Access Journals in Peru: An Overview of Open Science Practices* [Data set]. Figshare. https://doi.org/10.6084/m9.figshare.28783574.v1

Appel, A., Lujano, I., & Albagli, S. (2018). Open science practices adopted by Latin American & Caribbean open access journals. *ELPUB*, 1-14. https://dx.doi.org/10.4000/proceedings.elpub.2018.29

Appel, A. L., & Albagli, S. (2019). The adoption of Article Processing Charges as a business model by Brazilian Open Access journals. *Transinformação, 31*, Article e180045. https://doi.org/10.1590/2318-0889201931e180045

Arroyo-Hernández, H., & Huarez, B. (2019). La brecha de género en los comités editoriales de revistas científicas peruanas. *Revista de Gastroenterología del Perú, 39*(2), 197-198. https://doi.org/10.47892/rgp.2019.392.972

Balarezo Gerstein, N. (2005). Calidad de las revistas científicas biomédicas peruanas. *Anales de la Academia Nacional de Medicina*, 71-77. https://anmperu.org.pe/anales/2004/calidad_revistas_balarezo.pdf

Biblioteca Nacional del Perú (2019). *Hemeroteca Nacional: Catálogo.* Lima: Biblioteca Nacional del Perú. http://info.bnp.gob.pe/abnopac/

Buela-Casal, G., & López, W. (2005). Evaluación de las revistas científicas iberoamericanas de psicologia: Iniciativas y estado actual. *Revista latinoamericana de Psicología, 37*(1), 211-217. http://hdl.handle.net/10481/32659

Butler, L. A., Matthias, L., Simard, M. A., Mongeon, P., & Haustein, S. (2023). The Oligopoly's Shift to Open Access: How the Big Five Academic Publishers Profit from Article Processing Charges. *Quantitative Science Studies, 4*(4), 1-33. https://doi.org/10.1162/qss_a_00272

Chávez Sánchez, H. G. (2022). Calidad de las revistas científicas peruanas y su impacto en la investigación. *Revista de Ciencias Humanísticas y Sociales (ReHuSo), 7*(1), 51-66. https://revistas.utm.edu.ec/index.php/Rehuso/article/view/4266

Chen, X., & Olijhoek, T. (2016). Measuring the degrees of openness of scholarly journals with the open access spectrum (OAS) evaluation tool. *Serials Review, 42*(2), 108-115. https://doi.org/10.1080/00987913.2016.1182672

Clarivate Analytics (2020). *InCites*. https://incites.clarivate.com

Corera-Álvarez, E., & Molina-Molina, S. (2016). La edición universitaria de revistas científicas. *Revista interamericana de bibliotecología, 39*(3), 277-285. https://doi.org/10.17533/udea.rib.v39n3a05

De Filippo, D., & D'Onofrio, M. G. (2019). Alcances y limitaciones de la ciencia abierta en Latinoamérica: Análisis de las políticas públicas y publicaciones científicas de la región. *Hipertext.net: Revista Académica sobre Documentación Digital y Comunicación Interactiva, 19,* 32-48. https://doi.org/10.31009/hipertext.net.2019.i19.03

Debat, H., & Babini, D. (2020). Plan S in Latin America: A Precautionary Note. *Scholarly & Research Communication, 11*(1). https://doi.org/10.22230/src.2020v11n1a347

DOAJ (2025, January 8). *Results of our community consultation: retiring the Seal, changes to our metadata-Part II*. DOAJ [Blog]. https://blog.doaj.org/2025/01/08/results-of-our-community-consultation-forthcoming-changes-to-our-metadata-part-ii/

European Science Foundation (2024). *Part I: The Plan S Principles*. Plan S. https://coalition-s.org/plan_s_principles/

Harter, S. P., & Park, T. K. (2000). Impact of prior electronic publication on manuscript consideration policies of scholarly journals. *Journal of the American Society for Information Science, 51*(10), 940-948. https://doi.org/10.1002/1097-4571(2000)51:10%3C940::AID-ASI60%3E3.0.CO;2-F

Huamaní, C. (2010). Sobre las revistas médicas peruanas. *Revista Peruana de Medicina Experimental y Salud Pública, 27*, 152-152. https://doi.org/10.17843/rpmesp.2010.271.1457

Huamaní, C., & Pacheco-Romero, J. (2009a). Visibilidad y producción de las revistas biomédicas peruanas. *Revista de Gastroenterología del Perú, 29*(2), 132-139. http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1022-51292009000200005

Huamaní, C., & Pacheco-Romero, J. (2009b). Errores en las referencias bibliográficas de las revistas médicas peruanas. *Revista de Gastroenterología del Perú, 29*(4), 341-346. http://www.scielo.org.pe/scielo.php?pid=S1022-51292009000400007&script=sci_abstract

Jones, M. J., Brinn, T., & Pendlebury, M. (1996). Journal evaluation methodologies: A balanced response. *Omega, 24*(5), 607–612. https://doi.org/10.1016/0305-0483(96)00038-2

Latindex (2023). *Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal*. https://www.latindex.org

López-Cózar, E. D., Ruiz-Pérez, R., Jiménez-Contreras, E. (2006). *La edición de revistas científicas: directrices, criterios y modelos de evaluación*. Universidad de Granada. https://calidadrevistas.fecyt.es/sites/default/files/informes/edicionrce.pdf

Mayta-Tristán, P. (2012). Impacto de las revistas médicas peruanas según Google Scholar Metrics. *Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo, 5*(4), 6-7. https://www.imbiomed.com.mx/articulo.php?id=89955

Morales Morante, L. F. (2016a). Visibilidad e impacto de las revistas peruanas de Ciencias Sociales en acceso abierto. *Biblios, 65*, 29-51. https://doi.org/10.5195/BIBLIOS.2016.320

Morales Morante, L. F. (2016b). Producción e impacto de las revistas peruanas del ámbito de las Ciencias Sociales en el catálogo Latindex. *Investigación bibliotecológica, 30*(69), 179-204. https://doi.org/10.1016/j.ibbai.2016.04.017

Moskovkin, V. M., Saprykina, T. V., & Boichuk, I. V. (2022). Transformative agreements in the development of open access. *Journal of Electronic Resources Librarianship, 34*(3), 165-207. https://doi.org/10.1080/1941126X.2022.2099000

Muñoz-Vélez, H., Pallares, C., Echavarría, A. F., Contreras, J., Pavas, A., Bello, D., ... & Garzón, F. (2024). Strategies for Negotiating and Signing Transformative Agreements in the Global South: The Colombia

Consortium Experience. *Journal of Library Administration, 64*(1), 80-98. https://doi.org/10.1080/01930826.2023.2287945

Podesta, B. (1977). Revistas peruanas de este siglo. *Apuntes: Revista De Ciencias Sociales, 6*, 69-74. https://doi.org/10.21678/apuntes.6.120

Prieto Gutiérrez, J. J., & Alhuay-Quispe, J. (2020). Visibilidad mediática-social de las revistas académicas iberoamericanas de artes y humanidades en Emerging Source Citation Index: Una aproximación altmétrica. *Revista Ibero-Americana de Ciência da Informação, 13*(3), 936-962. https://hdl.handle.net/20.500.14352/6526

Salazar Villavicencio, A. M., Sihuay Torres, K., & Torres Rojas (2022). Revistas odontológicas peruanas: Una visión general para generar estrategias de mejora. *Educación Médica, 23*(1), Article e100716. https://doi.org/10.1016/j.edumed.2022.100716

Sánchez-Tarragó, N., Caballero-Rivero, A., Trzesniak, P., Domínguez, D. D., Santos, R. N. M. D., & Fernández-Molina, J. C. (2016). Las revistas científicas en América Latina hacia el camino del acceso abierto: Un diagnóstico de políticas y estrategias editoriales. *Transinformação, 28*, 159-172. https://doi.org/10.1590/2318-08892016000200003

Santillán-Aldana, J., Arakaki, M.; de la Vega, A., Calderón-Carranza, M., & Pacheco-Mendoza, J. (2017). Características generales de las revistas científicas peruanas. *Revista española de Documentación Científica, 40*(3), Article e182. https://doi.org/10.3989/redc.2017.3.1419

Schiermeier, Q., & Mega, E. R. (2017). Scientists in Germany, Peru and Taiwan to lose access to Elsevier journals. *Nature, 541*(13). https://doi.org/10.1038/nature.2016.21223

Scimago (2020). *Scimago Journal Rank – SJR*. www.scimagojr.com

Simard, M. A., Butler, L. A., Alperin, J. P., & Haustein, S. (2024). We need to rethink the way we identify diamond open access journals in quantitative science studies. *Quantitative Science Studies, 5*(4), 1042-1046. https://doi.org/10.1162/qss_c_00331

Tauro, A. (1938). "Contemporáneos" y "Cultura", 2 revistas de la generación modernista. *Letras (Lima), 4*(9), 134-155. https://doi.org/10.30920/10.30920/letras.4.16

Uribe Tirado, A. (2023). América Latina y la vía diamante. *Hipertext.net, 27*, 103-106. https://doi.org/10.31009/hipertext.net.2023.i27.10

Villatoro, F. R. (2017, January 6). *Science without access to Elsevier journals*. La ciencia de la mula Francis [Blog]. https://francis.naukas.com/2017/01/06/ciencia-sin-acceso-a-las-revistas-de-elsevier/

Walters, W. H., & Linvill, A. C. (2011). Characteristics of open access journals in six subject areas. *College & research libraries, 72*(4), 372-392. https://doi.org/10.5860/crl-132

Yance-Yupari, V. (2018). Uso de Open Journal System en revistas científicas peruanas. *Cultura, 32,* 353-366. https://doi.org/10.24265/cultura.2018.v32.16

Zeta Pozo, R. (2019). El Mercurio Peruano de Víctor Andrés Belaunde, promotor de los ideales del Mercurio de los amantes del país. *Mercurio Peruano: Revista de Humanidades, 531*, 12-15. https://doi.org/10.26441/MP531-2018-SM2

Publication data

Joel Alhuay-Quispe

Master's degree

Universidad Nacional Mayor de San Marcos, Dirección de Evaluación e Impacto, Lima, Peru

joel.alhuay@upsjb.edu.pe

https://orcid.org/0000-0002-1903-4687

Library and Information Science Degree and Master's in information and Knowledge Management. He is bibliometrician and researcher qualified at RENACYT(Concytec).

Originality

I declare that the text is original and is not being reviewed by any other publication.

Preprint

Manuscript has not available as preprint version.

Information about the job

The manuscript does not come from a dissertation or thesis. The manuscript was not part of a funded research project.

Acknowledgments

Not applicable.

Authors' contribution

Manuscript conception and preparation: J. Alhuay-Quispe
Data collection: J. Alhuay-Quispe
Discussion of the results: J. Alhuay-Quispe
Review and approval: J. Alhuay-Quispe

Use of artificial intelligence

Not applicable.

Financing

Not applicable.

Permission to use image

Not applicable.

Research Ethics Committee Approval

Not applicable.

Conflict of interest

Not applicable.

Data availability statement

The data are available at:

Alhuay-Quispe, J. (2025). *Current Status of Diamond Open Access Journals in Peru: An Overview of Open Science Practices* [Data set]. Figshare. https://doi.org/10.6084/m9.figshare.28783574.v1

License of use

Publisher

Published by the University Library System of the University of Pittsburgh. Responsibility shared with the partner universities. The ideas expressed in this article are those of the authors and do not necessarily represent the opinions of the editors or the university.

Editors

Fabiano Couto Corrêa da Silva and Lúcia da Silveira.

Background

Received: 01-08-2024 - Approved: 11-03-2025 - Published: 23-01-2026