

STATUS OF OPEN ACCESS LIS JOURNALS: AN EMPIRICAL STUDY OF DOAJ

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Open Access is a trend started in the world of Information which makes scholarly publications available online, free of cost or any other barriers. The largest and authoritative gold road OA database is the Directory of Open Access Journals (DOAJ) indexing all the standard OA journals meeting the DOAJ criteria of inclusion. The findings of the study carried on DOAJ unveils that the LIS journals in open access mode have signified their presence throughout the globe in 43 countries. The highest number of OA LIS journals in DOAJ has been found to be published from the U.S. whereas; India contributes only one OA LIS journal. The majority of the LIS journals prefer PDF formats. It was also observed that majority of the OA LIS journals have not mentioned their plagiarism policy. Studies also revealed that a majority of the LIS journals do not charge Author Processing Charges (APC). Majority of the LIS journals do not possess the DOAJ seal while Double-blind peer reviewing is significantly followed in DOAJ LIS journals. English was found to be the most prominent language as the medium of dissemination.”

Keywords: DOAJ, DOAJ seal, open access, LIS journals, journal screening policy, Creative Commons, Plan S.

INTRODUCTION

Open access movement evolved due to the void that was created between the researcher and research. It intends to create a space where anyone in need of information is able to find the desired without the limitations of time, money, space and copyrights. Open access movement has gained a critical eminence and is considered a vital asset in today's research milieu. As stated in the original declaration of Budapest Open Access Initiative, open access is literature “freely available on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work

and the right to be properly acknowledged and cited” (Budapest Open Access Initiative, 2002).

SPARC EUROPE clearly states the reason for open access. As stated, “Our current system for communicating research uses a print-based model in the digital age. Even though research is largely produced with public money by researchers who share it freely, the results are not available to those in needs and are hidden behind technical, legal, and financial barriers. These artificial barriers are maintained by legacy publishers and restrict access to a small fraction of users, locking out most of the world’s population and preventing the use of new research techniques. This fundamental mismatch between what is possible with digital technology—an open system for communicating research results in which anyone, anywhere can contribute—and our outdated publishing system has led to the call for Open Access (Sparceurope, n.d.).

Open access has opened a realm of information to the masses which was restricted to a few. Hence acting as a facilitator in enhancing and supporting advanced research activities in diverse fields. The accomplishment of OA to the scholarly literature and research journals will enhance the research in different fields as it would promote research reinforce education enabling scholars to share their knowledge, especially giving power to the rich, developed countries of the world to share their knowledge with the poor countries and vice versa (Christian, 2008). OA is further classified in three types: Green OA (self-archiving generally the pre or post-print in repositories); Gold OA (articles in fully accessible open access journals) and Hybrid or paid Open Access (subscription journals with open access to individual articles usually when

the fee is paid by the author, the author’s organization or the research funder).

DIRECTORY OF OPEN ACCESS JOURNALS (DOAJ)

The DOAJ was launched in 2003 at Lund University, Sweden. DOAJ started with about 300 OA journals, the number has now increased to around 10000 OA journals covering all areas of science, technology, medicine, social science, and humanities. To date, DOAJ contains 11,297 journals of more than 3,032,628 articles with 8,171 searchable at article level across 126 countries. DOAJ being a membership organization has three types of membership viz. Publisher, Sponsor, and an Ordinary member. A DOAJ Membership is a clear statement of intent and provides quality and peer-reviewed OA Journals. Also, DOAJ is the co-author of the Principles of Transparency and Best Practice in Scholarly Publishing (Principles). It serves as the initiation point for all the researches who are looking for quality peer-reviewed OA Journals. DOAJ is a member of and subscribes to the principles of COPE (Committee on Publication Ethics) (DOAJ, n.d.). Recently, as stated by the Global Sustainability Coalition for Open Science Services (SCOSS) website, DOAJ has reached its funding target to cover its operational costs. 8 consortia’s and 175 institutions from 18 different countries have committed support to DOAJ. This shows the importance of sustaining open-access infrastructure (SCOSS, 2019).

LITERATURE REVIEW

Ghane and Niazmand (2016) studied the status of Open Access journals published in developing countries i.e. Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and

Turkey (D_8 Countries). Pertinent data was obtained about journals published from 2000 to 2014 from the Journal Citation Report (JCR). The information included JIF, Rank in Category, Total Journals in Category, Journal Rank in Category, and Quartile in Category. The authors' identified 1,407 OA journals published in D-8 countries. It was found that Egypt published the most journals (490) and Bangladesh the fewest (29). Egypt, Iran, and Turkey accounted for approximately 73.5 percent of all journals. At the time of the study, 10,162 journals were registered in DOAJ, and 13.8 percent of them were published in D-8 countries. The mean JIF for all journals from individual countries was highest for Pakistan (0.84), followed by Iran (0.74) and Turkey (0.57). The mean SNIP for all journals from each country was highest for Nigeria (0.57), followed by Egypt (0.57) and Pakistan (0.51). It was noted that the widespread use of OA publishing models in D-8 countries will boost the accessibility of their journals' content and ultimately impact research in D-8 states. Journals published in Egypt, Iran, and Turkey accounted for approximately 75 percent of all OA journals published in D-8 countries. More than one-third (38 percent) of the journals the authors studied used a Creative Commons CC-BY license. Most of the journals with a JIF were in the JCR Medical Sciences category (60 percent). As the number of journals in D-8 countries increases, publishers should attempt to make their journals eligible for indexing in citation databases. The authors recommended for efforts to improve the quality of journals in other subject categories so that they became eligible for indexing in the JCR.

Dhanavandan and Tamizhchelvan (2014) found that out of 146 Library and Information

Science (LIS) Journals considered for their study, United States ranked first with 34 (24.6%) journals, followed by Brazil with 15 (10.2%) and Spain with 12 (8.22%) journals. The USA published the maximum number of journals in English as the primary language. During the period 1996 - 2005, more open access journals have been published but fewer journals were published in the multilingual language. Sahoo et al. (2017) extracted data from DOAJ to study the quantitative inclusion of LIS Journals. As per the findings, a total of 158 LIS Journals were found to be indexed in DOAJ. The publishers of these journals were from 43 countries in 21 different languages. English was found to be the predominant language of publication; three journals were published simultaneously in five languages. Indian along with Poland and United Kingdom was positioned at 5th rank with 6 Indian LIS Journals indexed in DOAJ. Laakso and Björk (2012) carried a study on "Anatomy of open access publishing: a study of longitudinal development and internal structure". In their study extensiveness of scientific articles published in OA journals published during 2000-2011 was measured. Parameters that were being observed during the study included structures of OA publishing concerned revenue models, publisher types, and relative distribution among scientific disciplines. Their study also surveyed the percentage of OA articles as compared to all other journal articles which included articles that were published OA with a delay and individual author-paid OA articles in hybrid OA. Using stratified random sampling, DOAJ journals covering the period from 2000- 2011 were retrieved from major publication indexes. A considerable amount of OA journals necessitate article-processing charges have become mainstream i.e. nearly 49

% of all the articles that were published in OA. Although publication volume grew in all major scientific branches, it was observed that major growth was observed in biomedicine in between the years 2000-2011.

Erfanmanesh (2017) argued about the status and quality of open access journals in Scopus. Four indicators viz. cite rate, Cite Score, SNIP and SJR were adopted to differentiate the quality of OA and non- OA journals that were indexed in Scopus in each subject area. Outcomes of the study were that around 17 % of the journals that were published by Scopus in the year 2015 were OA. 5.5 to 28.7% of OA journals were disproportionately spread across disciplines. The study further reveals that apart from the health profession and nursing, non-OA journals have achieved a statistically much higher average quality than the OA journal. The study concludes that even though open access gives more exposure to the scholarly journals, this may not always result in increased quality and impact of the journal. Wijewickrema and Petras (2017) did a study on journal selection criteria in an open-access environment: A comparison between the medicine and social sciences. In this study, they analyzed different answers given to a Global survey of 235 OA journal authors thereby using them to compare sixteen factors that influence journal choices between medicine and social sciences. According to the findings, authors from both the disciplines believe that peer-reviewing of the journals is more important as compared to the number of annual subscribers of the Journal. However, it was observed that as compared to social science authors, those in the discipline of medicine give significantly more consideration to (1) impact factor, (2) the inclusion of the

journal in abstracting and indexing services, (3) publisher's prestige, and (4) online submission with a tracking facility.

Hugar (2019) in his article titled "Impact of Open Access Journals in DOAJ: An Analysis" examined the trend and growth of open access journals at a global level, in the DOAJ portal from 2002 to 2018. The author found that there were 12,065 journals indexed in DOAJ wherein countries like the United Kingdom and Indonesia publications are more with English being the most common communication language. Most of the journals did not charge article processing charges (APCs). Medicine and Education related journals were highest, 11% of journals were awarded DOAJ special tag/designation. Contribution of Elsevier, Sciencedirect, and BioMed Central publishers was more compared to other publications during the study period. The United Kingdom, Indonesia, and Brazil contributing 33% of the journals in this portal. It was observed that 97% of the journals were peer-reviewed journals. The author found that a big boost to DOAJ came in the year 2017 with 22% of journals were added during that year alone. Only 11% of DOAJ journals got DOAJ-Seal for practicing extra high-level compliance and adherence to DOAJ open access standards. A study by Laakso et al. (2011) on the development of Open Access Journals during the 1990s until 2009 adopting a systematic technique was done. Data was extracted from DOAJ. Since an extremely high number of journals were registered in DOAJ, with the method of stratified sampling around 5000 were taken into consideration. According to the results, rapid growth in the publishing of open access journals had taken place in fifteen years. Based on the sampling results division into three distinct

periods was suggested: The Pioneering years (1993–1999), the Innovation years (2000–2004), and the Consolidation years (2005–2009).

Morrison (2017) studied DOAJ and reported that “The Directory of Open Access Journals (DOAJ) is the world’s most authoritative list of scholarly, peer-reviewed, fully open access journals, and a “must” for libraries of all types.” According to the study about the world’s 10% peer-reviewed, scholarly journal titles were included in DOAJ as of August 2007. According to a study of more than 9000 OA journals in DOAJ, about 28 % charged authors for publishing in their journals. Although figure varied for different disciplines, it was highest for medicine (47%) and the sciences (43%) and lowest in the humanities (4%) and the arts (0%) (Kozak and Hartley, 2013). Satish (2019) studied Indian Research output contribution in Open Access journals indexed in DOAJ. The study analyzed findings in the context of contribution according to country wise, year-wise, subject wise, publication processing fee, journals licensing, and publisher wise from 2003 to May 2019 concerning Directory of open access journal. As analyzed in June 2019 India ranked 14th (n=277) open access journals worldwide. The growth rate of research output increased from the year 2016 (n=33) onwards. In his study, Chauhan (2012) evaluated open access e-journals in LIS available on DOAJ. Out of the several searched e-journals, it was found that all are available in the full-text form free of cost and can be received regularly. The most notable findings in the study are that it provides effective communication between the user and online free e-journals. There is no alternative and substitute for its abundance, utility, and value. Morrison et al. (2015) in their survey

“Open Access article processing charges : DOAJ Survey May 2014 listed 10,000 fully open access, peer reviewed, scholarly journals. Most of these journals didn’t charge Article Processing Charges. As per the survey of 2567 journals 26% of journals listed in DOAJ do not have APC’s.

STATEMENT OF THE PROBLEM

There is a need to conduct an in-depth study to understand and explore the current status of open access with the help of open global initiatives. This study will assist in comprehending a comprehensive, complete, and updated status of open access resources quantified by the empirical data gathered from the Directory of Open Access Journals (DOAJ). The facets of the present study will include the status of Open Access Library & Information Science journals available through DOAJ with respect to the geographical location of LIS journal publication, Article Processing Charges (APCs), DOAJ seal, the peer review process, journal format, journal license full-text language, journal plagiarism policy and preferred format for OA LIS journals.

SCOPE OF THE STUDY

To accomplish the set objectives, the study will obtain data regarding OA journals in LIS from the DOAJ. It currently provides 10000+ open access journals covering all areas of science, technology, medicine, social science, and humanities. It contains around 156 LIS journals distributed over 43 countries. The time duration for this study was conducted from 2018 to 2019.

OBJECTIVES OF THE STUDY

The objectives of the present study include identification of the countries actively

contributing to publishing in LIS through different publishers based in those countries. The study also aims to examine the status of OA LIS journals concerning Article Processing Charges (APCs), DOAJ seal, peer-review process, journal license, full-text language, the format preferred, and journal plagiarism policy were the other objectives of the study.

METHODOLOGY

Data from DOAJ was extracted to examine the prevailing status of OA LIS journals concerning spatial location, APC, DOAJ seal, the peer review process, the format preferred, journal license, plagiarism policy mentioned, and full-text language. However, to know the updated and latest status of open access, the study is focused on the period between the years 2018 - 2019. Data were extracted from the DOAJ.CSV file and were analyzed using MS Excel to draw inferences.

DATA ANALYSIS AND INTERPRETATION

To date, DOAJ contains 11,297 journals of more than 3,032,628 articles with 8,171 searchable at article level across 126 countries. Data from DOAJ is extracted to examine the prevailing status of OA LIS journals concerning spatial location, APC, DOAJ seal, the peer review process, the format preferred, journal license, plagiarism policy mentioned, and full-text language focussing the period between the years 2018 - 2019. Data from DOAJ is extracted as.CSV file and has been analyzed using MS Excel to draw inferences and conclusions.

Geographical distribution of LIS journals in DOAJ

It is evident from the data collected from DOAJ; Open Access LIS journals have shown

their presence in a total of 43 countries. USA has the biggest contribution of 28 publishers which publish in Open Access Environment followed by Brazil (20), Spain (14), Indonesia (10), Poland (9), UK (7), Switzerland, Iran (5), Germany, Italy, Canada (4), Taiwan, Romania, and Cuba (3) while in the remaining countries, only one to two publishers are seen working in an open-access environment (Figure 1).

File format preferred by OA LIS journals in DOAJ

The file format is decided and selected keeping in view the ease of access and availability to store the document for further use or reference purpose. Majority of the OA LIS journals in DOAJ prefer PDF format (67%), followed by HTML (19%), XML (8%), ePUB (5%) while as Mobi (1%) is the least preferred format for the publishing of OA journals (Table 1).

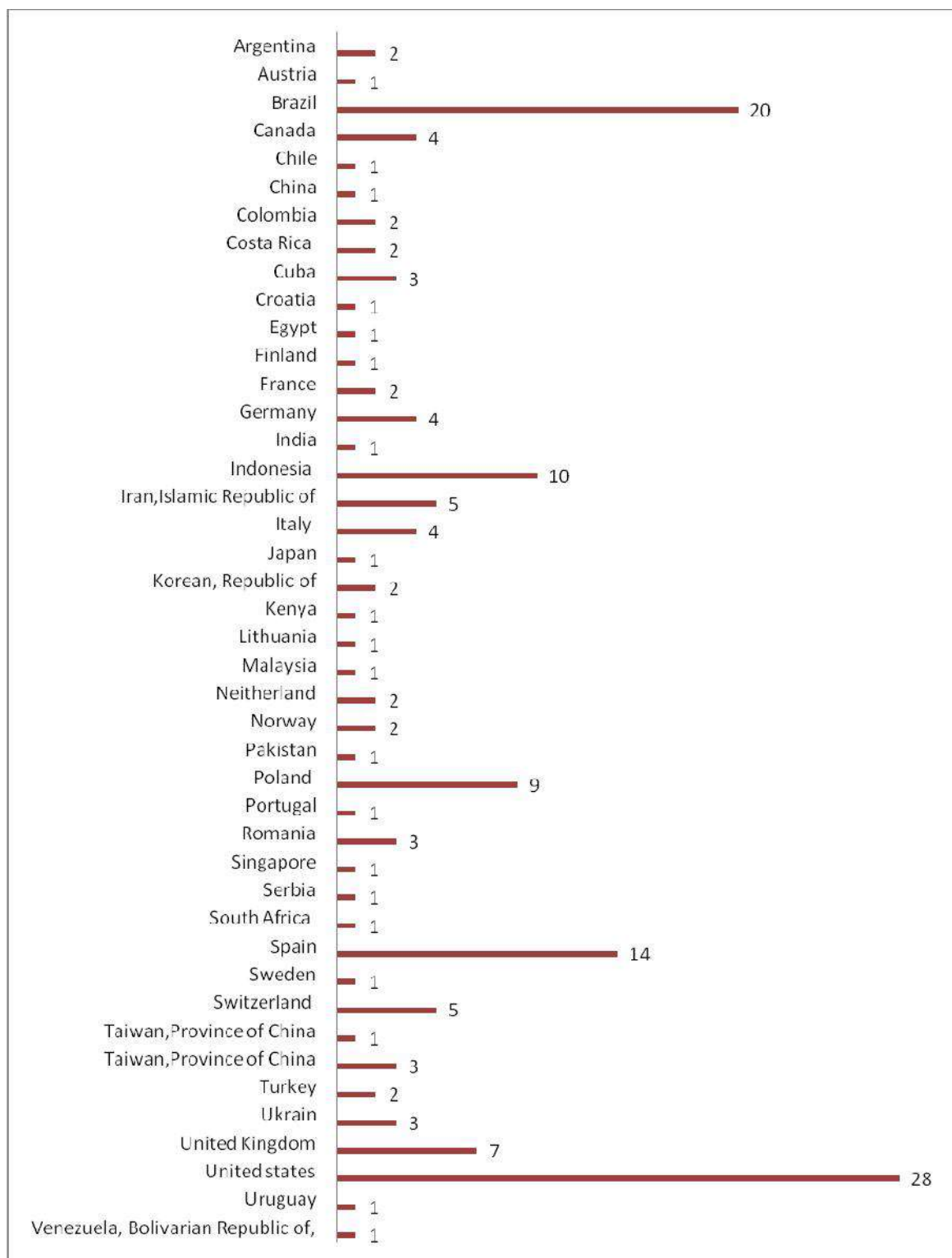
Table 1: Preferred File Format

Sl. No.	File Format	Percentage (%)
1.	PDF	67%
2.	HTML	19%
3.	XML	8%
4.	ePUB	5%
5.	MOBI	1%

OA LIS Journal Plagiarism screening policy in DOAJ

Journal plagiarism screening policy constitutes and reflects the quality of the journal. The data revealed that the majority (75%) of the OA LIS journals have not mentioned the plagiarism policy while meager (25%) journals have mentioned the OA journal plagiarism screening policy.

Figure 1: Countries Publishing LIS Journals in OA



Publishing rights to the author

In a majority (65%) of the journals, the authors do not hold the publishing rights without restrictions, while only 33 % of the journals allow the author to hold publishing rights without any restriction. Meager proportions (2%) of the journals have not revealed whether the author possesses publishing rights without restriction or not (Table 2).

Table 2: Publishing Rights to the Author

Publishing Rights to Author	Percentage (%)
Yes	33%
No	65%
No Information Provided	2%

Author Processing Charge (APC) status of LIS journals in DOAJ

An APC is a publication fee which the OA journal charges from the author. This fee is charged by the author to make his / her work available OA through the internet in OA journals. Mostly it is not the author who pays this fee but institution funding his research. Some publishers waive the fee in cases of hardship. DOAJ publishes articles in open access mode and made freely available online immediately after publication. To cater to the various costs inquired by DAOJ in the process of publication, APC is either charged to the author or the funding institution. For LIS journals it is found that 150 journals (96%) do not charge APC while only 4 LIS journals (3%) charge APC from the authors or the funding organization, whereas, no information is provided by 2 journals (1%) (Table 3).

Table 3: Author Processing Charges

APC Status in DOAJ	Percentage (%)
Yes	96%
No	3%
No Information Provided	1%

Status of DOAJ Seal in LIS journals

The DOAJ Seal is a certificate of competence for OA journals that achieve a high level of openness. It is awarded to the journals that adhere to best practices and prime publishing standards. A total of 1,280 journals indexed by DOAJ have DOAJ Seal. To receive the Seal, the journal submitted in DOAJ must comply with the following 7 conditions:

1. Use DOIs as permanent identifiers
2. Provide DOAJ with article metadata
3. Deposit content with a long term digital preservation or archiving program
4. embed machine-readable CC licensing information in articles
5. Allow generous reuse and mixing of content, following a CC-BY, CC BY-SA or CC BY-NC license
6. Has a deposit policy registered with a deposit policy registry and,
7. Allow the author to hold copyright without restrictions (DOAJ, 2018).

From the data analyzed, it is evident that majority i.e. 145 (93%) journals in the LIS field do not possess the DOAJ seal, while only 11 journals (7%) do possess the DOAJ seal.

Peer review status for LIS journals in DOAJ

Peer review is an important and integral part of the research and scientific publishing that validates the originality and quality of a paper. Peer reviewers are experts who deeply study the paper to pull out gaps and offer advice as to how to make them work more qualitatively. Many times a paper is rejected due to non-compliance with journal standards. The job of the peer reviewer is to make sure that the quality of the paper is high because if low-quality manuscripts are entertained, the reputation of the journal ceases in the scientific community. Majority of the journals 82 (53%) in LIS field are Double-Blind Peer-Reviewed, followed by 32 (21%) peer-reviewed journals, 23 (18%) Blind Peer-reviewed journals, 8 (6%) Editorial reviewed journals while as only two journals (1%) are open peer-reviewed whereas no information has been provided for 2 journals in DOAJ (Table 4).

Table 4: Peer Review Status

Peer Review Status in DOAJ	Percentage (%)
Double-Blind Peer Review	53%
Peer Review	21%
Blind Peer Review	18%
Editorial Review	6%
Open Peer Review	1%
No Information	1%

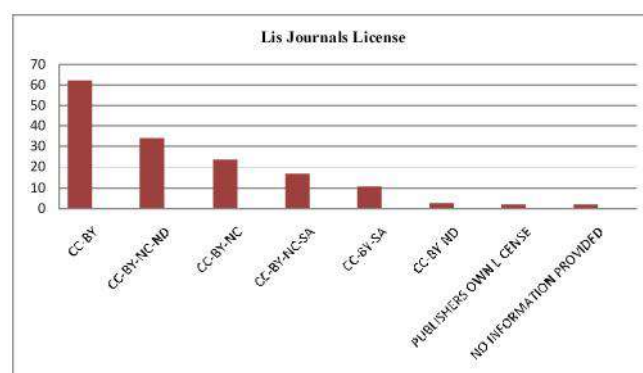
The medium of LIS journals for publishing in DOAJ

A common language that is understandable by the masses is more successful in disseminating the information to a greater multitude. Majority i.e. 68% of the LIS journals in DOAJ publish research work in the English language, while only ten journals (8%) do not publish in the English language.

The license of LIS OA Access journals in DOAJ

Creative Commons copyright licenses are the tools that provide the author with a standardized way of granting copyright permissions to their work. LIS OA journals available through DOAJ have different licensing combinations with the majority of 62 journals having CC-BY license followed by 34 CC-B-NC-ND licenses, 24 CC-BY-NC license, 17 CC-BY-NC-SA license, 11 CC-BY-SA license, 3 CC-BY-ND license and 2 journals with Publishers own license whereas no information is provided for two of the journals (Figure 2.).

Figure 2: License of LIS journals



LIS OA literature productivity on the global level

With the open access initiatives gaining momentum, many researchers and research communities have come forward to publish in open access mode. As per the data collected from the Web of Science, the total LIS research output in the subject of Library and Information Science is 2, 89,026 in which the total research output published in the open-access mode is 22,451. The data when analyzed, revealed that the majority of the LIS research (97%) is published in subscription mode, while only a meager proportion (7%) is published in open access mode.

Plan S: An Emerging initiative in the world of Open Access

Plan S states the fundamental principles for future Open Access publishing. No specific business model is endorsed by it but since most of the models defy these principles, Plan S requests publishers to move over to models that conform to the principles. Plan S was initiated by the Open Access Envoy of the European Commission and further developed by the President of Science Europe and by a group of Heads of national funding organizations. The significant contribution of the Scientific Council of the European Research Council is also there. Alliance of Coalition S is promoted by some national funders to take action towards the implementation of Plan S and are joined by the European Commission and the European Research Council. It is yet to be confirmed if DOAJ is going to be an implementing partner with Coalition S in the implementation of Plan S or not. (Plan S. (n.d.).

CONCLUSION

Open access movement has proved to be a boon for the scientific and research community. What was before a privilege to some is now accessible to everyone within the reach of one's fingertips, just a click away. Emphasis should be laid on publishing in open access as it has innumerable benefits to the author and the research fraternity as well. As more and more users can access the research through open access, research reaches a wider community and the authors are benefited by increased citations. But as the open-access movement is gaining momentum throughout the globe, it is also to be realized that screening the research and assessing

the quality of the journal becomes a very important and essential job. In the current study, until the year 2019, in DOAJ, LIS journals have made their presence from 43 countries. The US being on the forefront, the emphasis is to be laid on to bring other countries to work hard in the open access movement so that they can contribute fullest to the research world. This can be achieved by encouraging the authors to publish in OA journals. The need of the hour is to focus on the benefits of publishing in open access which is but not limited to reduced cost, ease of access, and duplication of research. India is lacking far behind with just one LIS publisher in DOAJ. An alarming situation for the nation, emphasis on the importance of Open Access, and awakening the LIS research scholars is the need of the hour.

Transparency is a crucial and critical part of journal production. The journal plagiarism policy ensures that the work is original and that due credit is acknowledged by the citing author to the cited author. It has been observed that the majority of the DOAJ LIS journals have not mentioned their very important plagiarism policy and a vital part of the open access movement. Hence, mentioning the journal plagiarism policy provides transparency to the journal and the author as well and incorporating it will lead to the success of the journal in the smaller story but making open access movement a success on the large. The majority of the DOAJ LIS journals do not provide the author with publishing rights which is a matter of concern. If the author holds publishing rights, he can reproduce and disseminate his work to the masses. When the author doesn't hold the publishing rights, he loses some or most of the control over his work through which the journal publisher gains benefit. Also, APC is charged by

a few of the publishers. Although many do not charge APC, making the author pay to make his work freely available violates the open-access initiative. Here it is important to mention that open access is profit to the research fraternity, not to the publishing community. A journal is popular among the research community because of its quality which is measured through various factors, such as impact factor, recognition by the governing research body, and so on. To maintain the quality of the journal, DOAJ has come up with DOAJ Seal. But it is alarming to find that majority of the LIS journals do not possess the DOAJ seal which raises questions on the quality of the journal. Although the majority of the journals in the LIS field are peer-reviewed, much work is yet to be done. The open-access movement proved to be a breakthrough in the subscription-based research world. While the initiative emphasizes and thrusts upon keeping the research work open to all, much of the work is yet to be done to make this movement a success for the research and dissemination rather than another opportunity to the profit makers to earn profits.

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