

Role of DOAJ in Promoting Open Access in India

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The Open Access (OA) movement supports online access to scholarly publications, eliminates financial and legal restrictions, and supports the dissemination of knowledge. Open access is not a new concept for Indian researchers. Still, there is some gap in the open access movement in India. Open access journals are growing in India, but many are questionable publications, and researchers are sending their papers to such journals. Many times, researchers are not able to identify the correct journal for their paper publication. The major goal of this study is to evaluate the role of DOAJ in the corpus of knowledge made by scholarly publications published between 2003 and 2022. Worldwide recognized database DOAJ (Directory of Open Access Journals) was analyzed for this research study. Open access publishing demonstrates how the world of knowledge is dynamic. India has significantly contributed to the growth of knowledge with its 326 open access journals. DOAJ ambassador and other OA advocates are also trying for promoting open access in India.

Introduction

Today's information society bridges the knowledge gaps between groups of information creators and information receivers. The introduction of ICT (Information Communication Technology) is fundamentally changing all facets of our society and has a big impact on scholarly communication. (Brown, 2020) Due to the exponential growth of scholarly literature, access to a vast amount of it has been significantly restricted, and libraries, particularly in developing countries, are finding it difficult to do so. Price rise for academic publications have also gravely impacted libraries that support academic scholars in their research activities. The Open Access (OA) movement was started as a revolutionary movement that encourages unrestricted access to academic articles online, eliminates financial and permission-based restrictions, and ensures the broadest possible dissemination of research. Open access platforms ensure that everyone has access to knowledge and information.

Open Access

UNESCO defines Open Access, as "Open access (OA) means free access to information and unrestricted use of electronic resources for everyone. Any kind of digital content can be OA, from texts and data to software, audio, video, and multimedia. While most of these are related to text only, a growing number are integrating text with images, data, and executable code. OA can also apply to non-scholarly content, like music, movies, and novels."(UNESCO, n.d.)

Budapest Open Access Initiative (Budapest Open Access Initiative | Read the Budapest Open Access Initiative, 2002) statement declaration in the year 2012 defines open access, "Open access give free access

to the literature, over public without any restriction of read, download, copy, distribute, print, search, or link to the full text articles without any legal barriers”

Peter Suber defines Open access (OA) literature, "Digital, online, costfree, and free from the majority of copyright and licence restrictions are the definitions of open access (OA). For the same reasons that everyone benefits from research in general, OA is beneficial to everyone. OA offers this service by enabling research and improving the accessibility and usefulness of the results. Finding and accessing the data one needs is made easier for researchers who are also readers, and connecting with readers who can utilise, cite, and build upon one's work is made easier for researchers who are authors. OA does not assist researchers because it expedites research and all the outcomes that depend on it, such as improved policies, new medicines, useful technologies, issues that are resolved, and beautiful information" (Suber Peter, 2004)

2. Methodology

This research is based on literature. For this work, All related literature and numerous websites that provide information regarding open access activities in India were analysed. Information about open access journals was gathered from several open access journal platforms in India and the DOAJ (Directory of open access journals).

3. Objective of Study

The objective of this study is to analyze the impact of DOAJ in India. It addresses the following research objectives:

- ❖ To explore the DOAJ platform and indexing system of DOAJ for OA journals;
- ❖ To explore the growth and status of open access journals in India;
- ❖ To Investigate open access imitative in India; and
- ❖ To recommend strategies and guidelines to open access adoption in India.

4. Literature Review

In India, there are many barriers to open access (OA), including predatory or low-quality OA journals and a lack of funding to cover the expenses of gold OA publications. Open access (OA) and its potential benefits must be made known to Indian academics. They should publish in this way whenever it is feasible to do so in order to prevent being taken advantage of by subpar OA papers, particularly in cases where public funding is involved in the research or where platinum OA is accessible. (Misra & Agarwal, 2019)

Open access journals are becoming a more popular choice for academicians in India to publish their work. India is 10th among the top 20 publishing countries in terms of total research output and 8th in terms of gold open access articles. India, however, does better than other top nations worldwide in terms of the proportion of gold open access publications. Indian researchers, for the most part, prefer to publish their papers in

national journals as opposed to international journals, and the percentage of gold open access research output in the clinical, preclinical, health, life, and physical sciences is significantly higher than that of other fields like the arts, humanities, and social sciences. (Nazim, 2018)

DOAJ is the most comprehensive web source, recognizing more journals. Despite having stringent inclusion requirements based on the definition of the Budapest Open Access Initiative, DOAJ is nonetheless significantly more comprehensive than other directories. (Mukherjee, 2014)

The lack of any planned initiatives to make locally conducted research accessible on open platforms emphasises the lack of information sharing. It is clear from India's educational environment that studies are only taken seriously if they are published in journals. Faculty members are encouraged to publish in these publications despite their questionable quality. Journals with open access are impenetrable. Whether it be on the university website or in other online forms, the most of faculty members do not provide a free edition of the publication. On their websites, more than 99 percent of universities of higher education in India do not provide free access to research data. (Goswami, n.d.)

4.1 Open Access Initiative in India

India is now moving toward a one-nation subscription model (Mallapaty, 2020). The Indian government is putting forth a novel concept that would grant unrestricted access to academic publications to all citizens of the country. According to researchers advising the government, the government intends to negotiate with the major scientific publishers in the world to build up nationwide subscriptions rather than many arrangements with various institutions that only scholars may use. The organization known as Open Access India is already actively promoting open access in India. The Open Access India community is growing rapidly now. A draught “National Open Access Policy” that was created and submitted by the Open Access India community of practice is accessible at <https://goo.gl/KBRj49>. However, the community is still awaiting the Indian Government’s clearance. (National Open Access Policy of India (Draft, 2017) Ver. 3 – Open Access India, n.d.)

Government of India started The National Data Sharing and Accessibility Policy (NDSAP), Tin March 2012 to provide open access to the data. Through this project government put an effortso that the enormous amount of data that is produced by the government can be used by the various stakeholders, particularly researchers, citizens, and civil society for the socio-economic transformation of India and other various purposes, including research. <https://community.data.gov.in/open-access-a-growing-international-movement/>. Journals Published by the Indian Academy of Science are available in Open Access <https://www.ias.ac.in/Journals/Overview/>. For research academics, Shodhganga <http://shodhganga.inflibnet.ac.in/> offers a platform where they can deposit their doctoral theses and make them open access to the entire scholarly community. ETDs (Electronic Theses and Dissertations) submitted by researchers can be collected, indexed, stored, distributed, and preserved by the repository. In India, there have been numerous attempts to expand the open access movement through various programs, but yet, there is no official open access policy in place. Apart from government institutions and universities, there are numerous more small private

institutions in rural areas that continue to struggle with fundamental internet access issues; in these rural and urban areas, the term “open access” is meaningless. UGC (University Grant Commission, New Delhi) released the list of approved journals <https://www.ugc.ac.in/journallist/> but many journals from this list many journals are not open access journals.

4.2 Directory of Open Access Journals

DOAJ motivates and encourages open access journals to comply with best publishing practices, making them more attractive publishing channels, increasing their visibility, and supporting the authors/researchers in reaching a wider global audience. By aggregating journals and their metadata, DOAJ provides researchers with easy and free access to over 3 million peer-reviewed articles in all subjects, in many languages, either directly from the DOAJ or via Google, and the discovery services provided by commercial aggregators. DOAJ enables libraries to provide better advice to researchers and students on publishing in open access journals. DOAJ collaborates with other like-minded organizations to advance open access and influence research communities that publishing in open access journals is a viable publication channel. DOAJ promotes best publishing practice – <https://doaj.org/bestpractice> - and promotes standards and transparency in academic publishing. DOAJ helps authors to avoid being caught by unethical publishers (for instance via the recent <http://thinkchecksubmit.org/> campaign - co-founded by DOAJ). (DOAJ, n.d.) DOAJ provides support for your open access publication fund - making it easier to determine which journals should be supported.

5. Status of DOAJ in India

The DOAJ (Directory of Open Access Journals) is getting the attention of Indian Librarians and the research community. As per DOAJ search analytics for August 2022 month (Figure 1), India is the top most country to visit DOAJ sites from all around the world.

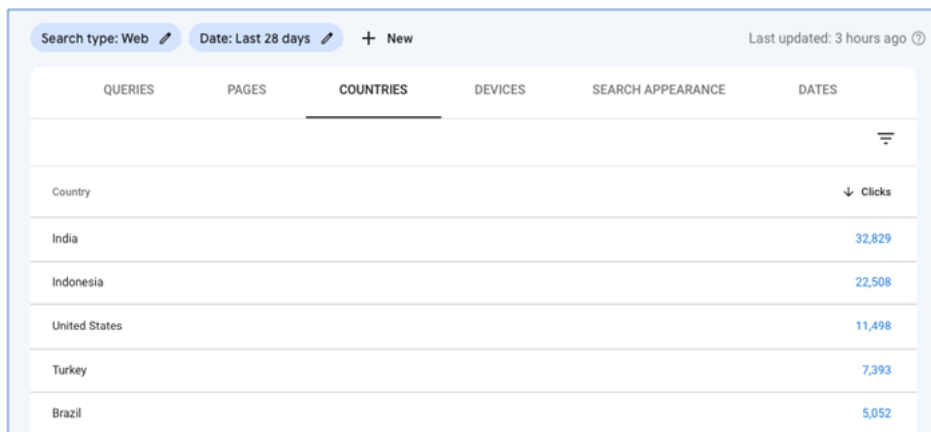


Figure 1: DOAJ Search analytics

The researcher analyzed year-wise data of open access journals indexed from India in DOAJ to determine the year-wise growth of OA journals indexed in DOAJ from 2003 to 2019 and the country-wise representation of these journals. The data so analyzed is presented in Table - 1 given below.

Table 1: Year-wise Growth of Open Access Journals from India Indexed in DOAJ

Year	Number of Journals Added in DOAJ	Growth %
2003	2	6.52
2004	5	16.3
2005	7	22.82
2006	6	19.56
2007	3	9.78
2008	9	29.34
2009	11	35.86
2010	12	39.12
2011	5	16.3
2012	5	16.3
2013	7	22.82
2014	5	16.3
2015	9	29.34
2016	24	78.24
2017	56	182.56
2018	48	156.48
2019	36	117.36
2020	35	114.1
2021	31	101.06
2022	10	32.6
	326	

The above table shows the year-by-year progression in the number of open access journals from India indexed in DOAJ from 2003 to 2022. It may be observed from the table that in the first year of the inception of DOAJ, there were 2 open access journals from India. Other important observations include slow growth in the number of journals indexed from 2015 to 2018 and a higher increase in this number from 2017, of course, dipped down in 2020. The highest number of new journals (56) added from India to DOAJ was

during 2017, followed by 48 in 2018, and 36 in 2019. They represent the growth rate of 182.56%, 156.48%, 117.38%,

Figure 2 depicts year-wise progression in the total number of journals from India indexed in DOAJ from 2003 to 2022

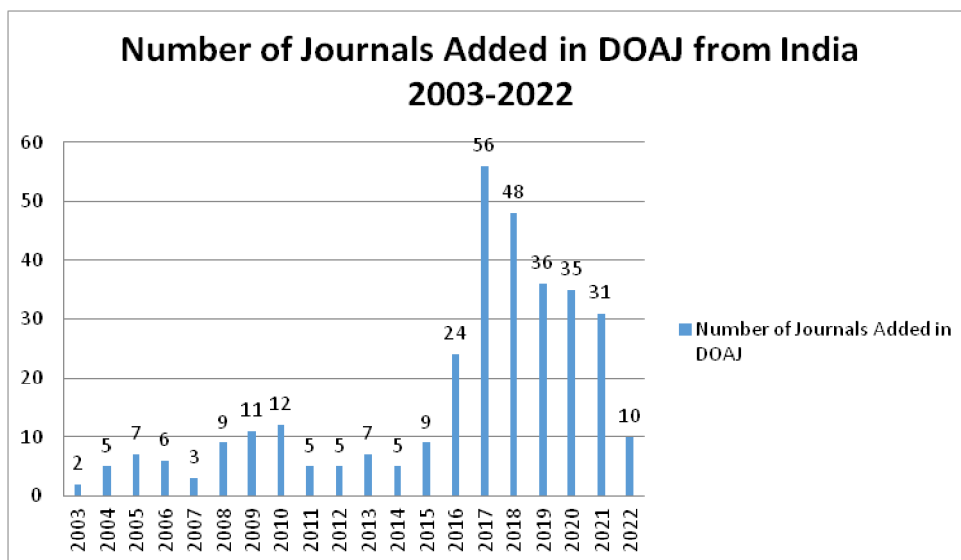


Figure 2: Subject-wise Open Access Journals from India Indexed in DOAJ

The researcher analyzed year-wise and subject-wise analyses of the open access journals indexed in DOAJ to understand the subjects in which subject most of the journals were included in DOAJ. Table - 2 given below presents subject-wise journals indexed in DOAJ from 2003 to 2020.

Table 2: Subject-wise journals distribution DOAJ journals India

Subject	Subject-wise Journals Distribution	(%)Percentage
Medical Science	258	79
Basic Science	25	8
Engineering & Technology	11	3
Social Science	15	5
Languages	6	2
Agriculture	7	2
Education and Library Science	4	1

The above table exhibits that the maximum number (258) of OA journals from India indexed in DOAJ belong to Medical Science, and they represent 79 % of the total 326 OA journals from India indexed in DOAJ. Basic Science follows this with 25 OA journals, Engineering and Technology with 11, and Languages with 6 journals, and they represent 8%, 2 %, and 2 %. Figure - 3 below depicts the subject-wise distribution of open access journals from India indexed in DOAJ.

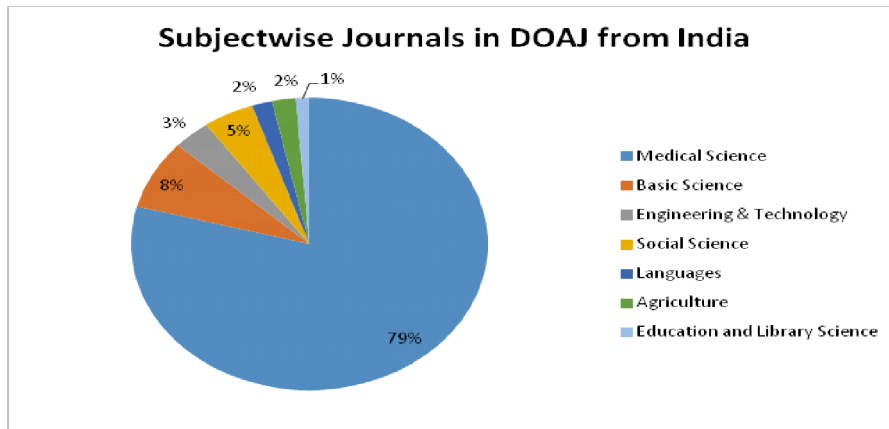


Figure 3: Subject wise Journals distribution DOAJ India

Article Publication Charges have a greater impact on authors in publishing their research papers in open access journals. Therefore, the researcher analyzed the data relating to article publication charges of DOAJ journals from India, Table - 3 given below presents information of journals that are collecting article publication charges and journals that are not collecting article publication charges from the authors.

Table : 3 APC-wise journals distribution DOAJ journals India

Country	Journals Collecting APC Charges	Journals not Collecting APC Charges	Total
India	89	237	326

The above table exhibits that 89 OA journals out of 326 are collecting Article Publication Charges from authors for publication of articles, and 237 OA journals are not collecting Article Publication Charges from authors for publication of their articles. They represent 27% and 73%, respectively. Figure - 4 below depicts the subject-wise distribution of open access journals from India indexed in DOAJ. Hence, many journals are not collecting APC charges from authors for the publication of articles.

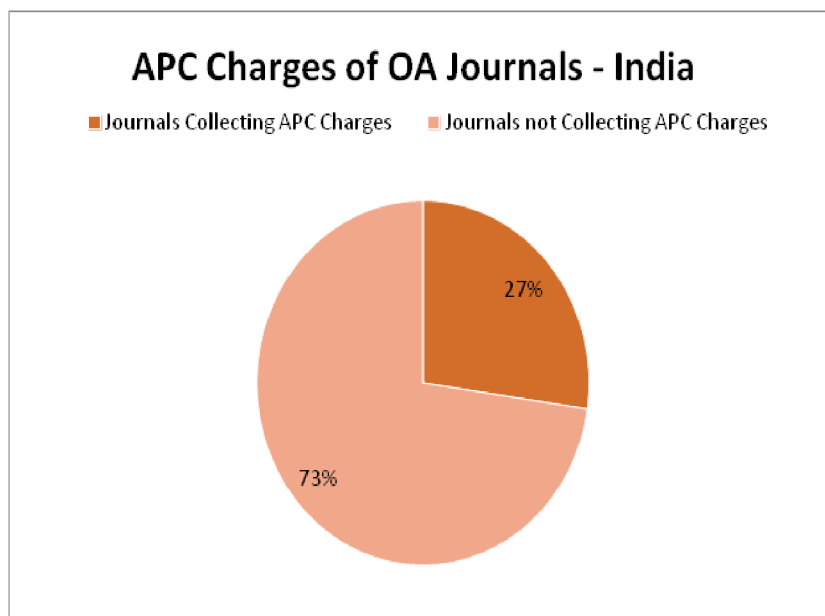


Figure 4: APC Charges journals distribution DOAJ India

The journal's license policy gives rights to the reuse of the journal's contents. Table 4 gives detailed information about the DOAJ Journals license policy.

Table 4: Licence policy of DOAJ journals India

	License policy of DOAJ Journals India	(%)Percentage
CC-BY	23	3
CC-BY_NC	20	3
CC-BY-NC-ND	34	38
CC-BY-NC-SA	245	50
Publisher own Licence	4	1
	326	

The above table exhibits that the maximum number (245) of OA journals from India indexed in DOAJ belong using the CC-BY-NC-SA policy and they represent almost 50 % of the total 326 OA journals indexed in DOAJ. The CC-BY-NC-ND policy was adopted by 34 OA journals, CC- BY policy by 23 Journals, and CC-BY-NC by 20 journals they represent 3 % respectively Figure - 5 below depicts the subject-wise distribution of OA journals from India indexed in DOAJ.

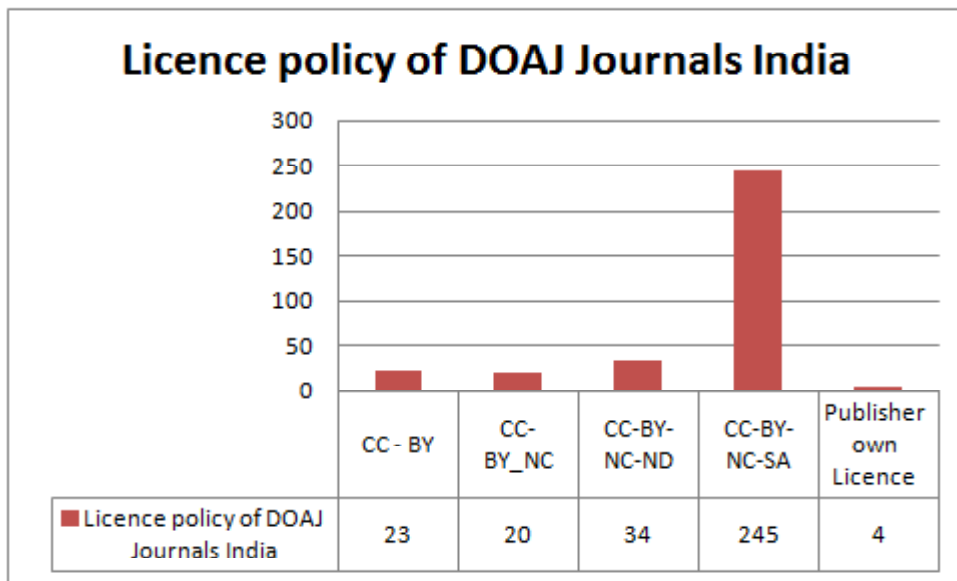


Figure 5: Licensing policy of DOAJ Journals India

6. Ambassador's work to Promote Open Access in India

16 ambassadors were appointed as DOAJ ambassadors worldwide in 2016 with the help of the IGRTC initiative. The DOAJ currently has 23 ambassadors. From PhD candidates to professors, librarians to directors of university libraries, and librarians and informatics specialists to senior management in publishing corporations, these individuals represent a wide range of professionals. As a DOAJ Ambassador role is to promote open access in India and handles open access journal applications from the year 2016. Open access workshops, training programs, and various open access events are conducted in India. DOAJ Indian ambassador focuses on this area to help researchers make better choices to adopt OA practices. DOAJ Ambassadors.

7. Strategies and guidelines to open access adoption in India

Due to India's emerging status and growing economic strength compared to other developing countries, many journals do not provide fee waiver programs to Indian researchers. The truth is that only a small number of Indian universities and research institutions have open access publication funding policies. A few recommendations to promote open access are,

- i. Institute, Universities should support open access research.
- ii. Public-funded research from the Indian research community needs to publish in open access journals.
- iii. Proper training and infrastructure need to be provided to develop an institutional repository for each institute.

- iv. Concerns emerge over violations of copyright. Authors are discouraged from submitting their work for publication since there is a perception that research carried out in smaller colleges may be plagiarised from those of the big universities.
- v. Preprints submissions are encouraged to be made as soon as possible to the 'Preprints' section or community of the open-access public repository.
- vi. Open access policy needs to be adopted and supported by the Indian government.

8. Conclusion

Analysis of this study completed with 326 open access journals imported from the DOAJ database. India is the topmost country to visit DOAJ sites from all around the world in August 2022 month. As per subject-wise analysis, medical science subjects contribute 79 % of journals in DOAJ and 73% of open access journals from India are not charging any publication charges from authors. Total of 50% OA journals from India indexed in DOAJ are using the CC-BY-NC-SA licensing policy. In the Indian Open Access scenario, open access promoters are working hard to increase OA awareness in India, but the universities and institutes also need to help them. The Indian government ought to express interest in fostering OA initiatives and formulating OA regulations.

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