

Exploring Research Scholars' Perspectives On Open Access Publishing Initiatives: A Study Of Doaj & Doar

Dr. Mahendra Singh Rao ¹, Dr. Monica Rao ², Ms. Sonal Rawat ³

¹ Assistant Professor, Department of Library and Information Science, University of Rajasthan, Jaipur, Email: raoms78@gmail.com, <http://orcid.org/0000-0002-9418-6437>

² Assistant Professor, Department of Sociology, University of Rajasthan, Jaipur, India
raodrmonica@gmail.com <https://orcid.org/0009-0009-1601-7337>

³ Research Assistant, Department of Library and Information Science, University of Rajasthan, Jaipur

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ABSTRACT

Electronic resources play a vital role in distributing scholarly material in the current digital age. This study investigates the information-seeking habits of research scholars at the University of Rajasthan, with a specific focus on their knowledge and utilization of open-access initiatives such as the Directory of Open Access Journals (DOAJ) and the Directory of Open Access Repositories (DOAR). Data was collected using an online survey and analysed using descriptive statistics. The results indicate that a large majority (91%) of participants are familiar with DOAJ and DOAR, yet a tiny percentage (8%) have never utilized these tools. Google Scholar is the platform that is used most frequently, with a usage rate of 24%. It is followed by JSTOR, which has a usage rate of 21%. Shodhganga has a usage rate of 20%, while ResearchGate has a usage rate of 10%. Nevertheless, scholars have obstacles while trying to access these materials, mostly because of intermittent internet connectivity, insufficient ICT infrastructure, language hurdles, and limited knowledge of information retrieval methods. Although e-resource platforms are widely acknowledged, their practical utilization remains rather limited. In order to tackle this issue, the University of Rajasthan should adopt extensive educational initiatives, organize workshops, and offer training sessions to boost scholars' proficiency in efficiently navigating and utilizing various electronic information platforms.

Keywords: Open-Access, Open Access Publishing, Information Seeking Behavior, DOAJ, DOAR, E-resources, Platforms, Research Scholars

INTRODUCTION

The information landscape has undergone a fundamental transformation in the digital age due to the proliferation of literature accessible online. The dynamic information environment has prompted a fundamental change in the way patrons seek information, as they favour electronic resources over traditional print materials. Presently, intellectual exploration and research academicians, students, and educators actively seek information via a variety of electronic resources and media. Open-access initiatives strive to meet the growing need for easily accessible information by providing a wide range of open-access platforms in order to satisfy the desires of users. Open Access (OA) journals are academic publications that provide unrestricted and cost-free online access to its material for all readers, without requiring a subscription or access fees. This strategy differs from conventional subscription-based publications, which necessitate users or their institutions to make payments in order to access articles. Open access (OA) publications strive to eliminate financial and permission obstacles in order to facilitate the access, distribution, and influence of scholarly research.

OA publications have revolutionized academic publishing by offering unrestricted access to intellectual research, therefore fostering diversity and expediting scientific advancement. OA journals have emerged as a solution to the expensive nature of traditional subscriptions and the demand for public availability of research. These journals utilize methods such as Gold and Green Open Access to freely distribute knowledge. The Open Access (OA) movement is supported by significant programs such as Plan S and numerous government mandates. It receives

backing from financial authorities and academic institutes globally. Despite the difficulties posed by the financial burden of Article Processing Charges (APCs) and the increasing prevalence of predatory journals, ongoing collaborations and creative funding models are actively working to tackle these obstacles. As a result, open access (OA) journals are promoting a fair and dynamic research environment, ensuring that scholarly knowledge is accessible to everyone and encouraging global innovation. Open Access (OA) journals have numerous benefits, such as enhanced prominence and availability of research, resulting in a broader and more varied audience. By eliminating subscription obstacles, they enable the widespread distribution of knowledge to scholars, practitioners, and the general public, regardless of their financial or institutional associations. The unrestricted accessibility of research findings can expedite scientific breakthroughs, promote increased cooperation, and amplify the influence of research by ensuring its prompt availability to politicians, educators, and other interested parties. In addition, open access (OA) journals promote academic fairness by enabling academics from financially disadvantaged institutions and developing nations to freely access and contribute to the worldwide pool of knowledge, without being limited by financial barriers. The idea of establishing directories for open-access journals was initially presented during the inaugural Nordic Conference on Scholarly Communication (NSCS) in May 2003, which took place in Lund/Copenhagen. In that very year, the Budapest Open Access Initiative (BOAI) formulated a precise and unambiguous definition of open access. Simultaneously, the Directory of Open Access Journals (DOAJ) was initially launched.

A comprehensive understanding of individuals' perspectives and opinions concerning the Directory of Open Access Journals (DOAJ), the Directory of Open Access Repositories (DOAR), and other open resources is the primary aim of this research. To achieve this, data collection and analysis will be conducted. This encompasses the assessment of participants' utilization, frequency, and understanding of open-access online databases and resources. Additionally, the study seeks to identify the sources from which participants obtain information regarding the tools and electronic resources they utilize to access and explore for information. The study aims to examine the underlying justifications for employing electronic resources, the challenges that may arise during their accessibility, and the possible impact that orientation or training programs may have on scholarly and research undertakings. Additionally, the investigation seeks to evaluate the degree of knowledge regarding DOAJ and DOAR and collect suggestions for enhancing their application. In addition, the research aims to gather feedback on the efficacy of electronic resources in enhancing research output and solicit recommendations for increasing e-information literacy among faculty and researchers. Concerning e-resource platforms, DOAJ and DOAR, this study examines the information-seeking behavior of research academicians, with a particular emphasis on individuals affiliated with the University of Rajasthan. It assesses the impact of various e-resource platforms on enhancing research contributions and investigates the awareness and utilization of e-resources by academics.

2. METHODOLOGY

Using a descriptive research methodology, this study looked at how research scholars at the University of Rajasthan felt about open access publishing projects, focusing on the Directory of Open Access Journals (DOAJ) and the Directory of Open Access Repositories (DOAR). Participating research scholars from 171 different fields filled out a structured web-based questionnaire about their demographics, how familiar they were with open access resources, how often they used them, what other e-resources they used, and what benefits and challenges they saw in using these resources (Creswell, 2014). The two-month data collection used chance sampling to choose participants because it was quick, cheap, and effective (Bryman, 2016). A summary of the responses was made using descriptive statistics. With permission from the University's Institutional Review Board, meticulous ethical considerations were carefully followed, guaranteeing privacy and free participation (American Psychological Association, 2017). Understanding how the research scholars used DOAJ and DOAR was made easier by this methodological technique, which shed light on how they used open access resources in their academic work.

3. Data Analysis and Interpretations

Statistical descriptive methods were employed to conduct a comprehensive analysis of survey data collected from 171 research scholars affiliated with the University of Rajasthan. The utilisation and perception of open access resources, namely the Directory of Open Access Journals (DOAJ) and the Directory of Open Access Repositories (DOAR), were significantly enhanced by this analysis. The present analysis focused on several critical factors,

including demographic distributions, patterns of awareness and utilization, frequency of use, the variety of platforms utilized, and the associated benefits and challenges. These elements were derived from the concepts established by Creswell (2014) and elaborated in Field (2013). The extensive applicability of open access resources in numerous academic domains was underscored by the well-balanced representation of demographic data across disciplines (Bryman, 2016). Additionally, the results of the survey indicated that while public knowledge regarding these resources is considerable, participation varies, suggesting that accessibility or usability concerns may impede their optimal application (Fink, 2013). Consistent with prior research emphasizing the growing importance of open access resources in enhancing the visibility and influence of research (Watson, 2018), the utilization frequency statistics revealed that a substantial proportion of the academic community relied heavily on these platforms. Additionally, a comparison of platform utilization revealed a hierarchical structure of preferences, wherein JSTOR and other specialized resources ranked below Google Scholar. This is consistent with the identification of patterns concerning the evolving dynamics of information retrieval in academic settings by Harzing and Alakangas (2016). The study additionally acknowledged significant benefits linked to the implementation of DOAJ and DOAR, including increased accessibility to current research and enhanced dissemination of scholarly articles. According to Suber (2012), the results of this study are consistent with prior research that has examined the profound effects of open access on scholarly inquiry. Reflecting the concerns raised by Borgman (2015) regarding barriers to the effective utilization of digital resources in higher education, the difficulties of inadequate infrastructure support and limited digital literacy were also documented. The aforementioned results provide a comprehensive understanding of the manner in which the University of Rajasthan integrates open access materials into its scholarly missions. Furthermore, they establish a foundation for subsequent research aimed at enhancing academia's global support systems and resource provision.

4. Demographic Distributions

A thorough examination of the demographic distribution and usage patterns of open access resources, including the Directory of Open Access Journals (DOAJ) and the Directory of Open Access Repositories (DOAR), was conducted as part of a study among research scholars at the University of Rajasthan. The demographic information showed that the participation pool was heterogeneous, with almost equal distribution of genders and representation from a variety of academic areas, including Science, Commerce, and Social Sciences. This variety highlights how useful and widely appealing open access resources are in a variety of academic domains. Descriptive statistics were among the statistical studies used to determine the scholars' awareness levels and DOAJ and DOAR usage rates. These investigations revealed a wide range of utilization frequencies despite high knowledge, which may indicate the presence of obstacles like poor infrastructure or accessibility problems. Visual aids such as pie charts that broke down platform utilization and bar charts that displayed usage frequency were used to illustrate the findings. These tools emphasized Google Scholar's dominance in addition to DOAJ and DOAR. These diagrams not only made the data easier to interpret, but they also demonstrated how frequently different open-access materials are integrated into academic work. The analysis's conclusion indicates that although there is widespread use and knowledge of open access resources, there are still some significant gaps that may be resolved by making resources more accessible and giving academics specialized training. With this strategy, all academic sectors would be able to fully benefit from open access's advantages, which include enhanced exposure and simpler access to recent research.

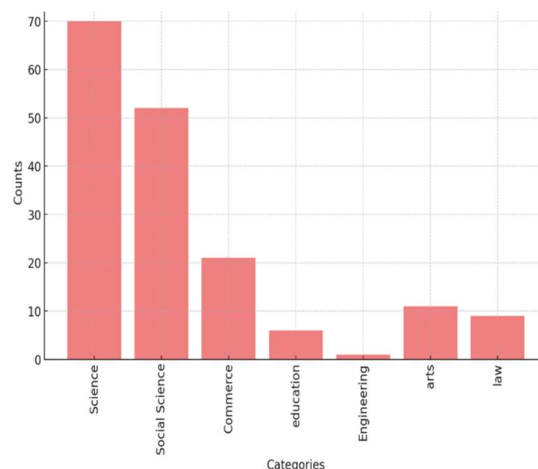


Fig 1: Student category histogram

In **Figure 1**, we illustrate the distribution of students among various academic areas. The discipline of science has the largest number of students, with over 70 enrolled, while Social Science has just over 50 students, suggesting a significant level of interest in both areas. The field of Commerce exhibits a reasonable level of interest, with around 30 students enrolled. On the other hand, both Education and Engineering have smaller enrollments, with less than 20 and approximately 10 students respectively. The Arts and Law disciplines have a relatively small number of students, ranging from 10 to 15, making them the least popular category among the students in this dataset. Science and Social Science are the most popular fields of study among students, whereas Education, Engineering, Arts, and Law have far less students enrolled.

5. Awareness and Usage Patterns

A substantial proportion of the participants (98.8%) expressed familiarity with DOAJ and DOAR, demonstrating a notable degree of awareness regarding these platforms. Nevertheless, the effective utilization of these resources was marginally lower at 80%. This evident contradiction implies that although academics are typically cognizant of open access resources, there are still obstacles that hinder their complete implementation.

Awareness Regarding DOAJ and DOAR

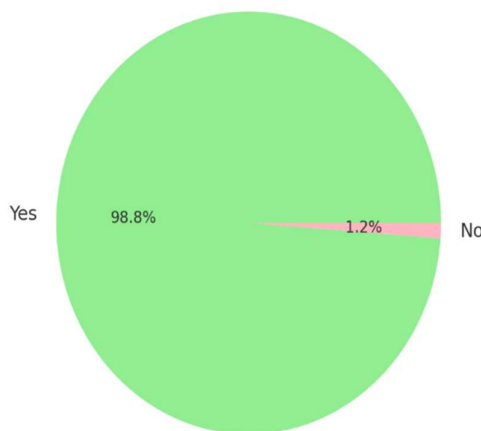


Fig 2: Awareness regarding DOAJ and DOAR

The level of knowledge regarding the Directory of Open Access Journals (DOAJ) and the Directory of Open Access Repositories (DOAR) among the respondents is depicted in the pie chart. A mere 1.2% of respondents indicated ignorance of these directories, whereas the overwhelming majority, 98.8%, indicated knowledge. The exceptionally high awareness rate indicates that DOAJ and DOAR are widely recognized and well-known resources in the surveyed community. This underscores their substantial presence and influence in the realm of open access initiatives and scholarly communication.

6. FREQUENCY OF USE

A significant reliance on these resources for research activities was indicated by the fact that 32.7% of the academicians accessed these platforms on an intermittent basis, as determined by an analysis of usage frequency. Moreover, it is worth noting that a plurality of the participants (20.3%) utilized them on a fortnightly basis, while 17.5% did so daily. A mere 8% of users have never utilized the platforms, which may indicate that concerns regarding accessibility or unmet resource requirements are present, as 13.5% utilized these resources on a monthly basis, 2% utilized them as required, and 2% never utilized them.

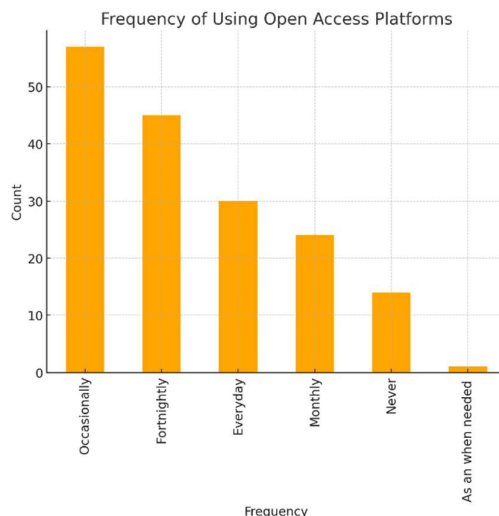


Fig 3: Frequency of using open access platforms

The chart showing how often people use open access tools shows that most of the people who answered only use them sometimes, which means that they are moderately but inconsistently used. A noteworthy subset demonstrates a high degree of dependence and integration into their research activity, using them either monthly or daily. The existence of responders who hardly often or never utilize these tools, however, raises the possibility of obstacles or a lack of knowledge. Institutions should concentrate on raising awareness, offering specialized training programs, and resolving access concerns in order to enhance utilization. By doing this, they may promote more regular and extensive use, which will increase the overall efficacy and influence of materials that are freely accessible to researchers.

7. Platforms Used

The research investigated the variety of electronic resources utilized by the analysts. Google Scholar was the most utilized platform, comprising 17.3% of all utilization, as determined by the analysis. Following this, the Registry Open Access Repository (ROAR) ranked 13.8%, while JSTOR and Shodhganga each accounted for 15.6%. 10.4% of the scholars reported utilizing ResearchGate, whereas 8.7% each relied on INFOPORT and SHERPA/ROMEO. 3.5 percent of academics utilized Sci-hub. Resources that were utilized less frequently comprised sci-tech (0.2%), Inspira, jgate, and doaj (each at 1.7%), INSPIRE HEP, PubMed, and PubMed Central (each at 0.9%), and the specific Wikipedia page for the title (0.3%). Scholars rely on a variety of supplementary resources for exhaustive research support, notwithstanding the significance of open access directories such as DOAJ and DOAR, according to this preference hierarchy.

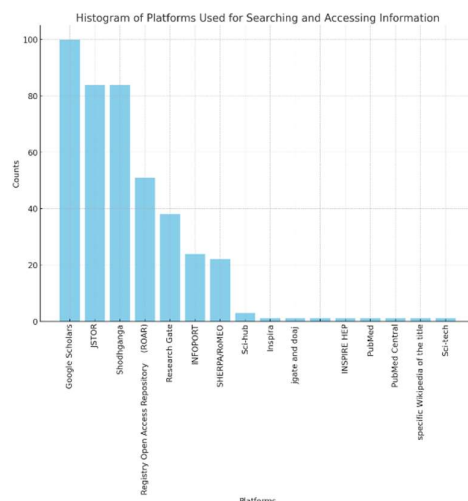


Fig 4: Histogram of platforms used for searching and accessing information

The histogram shows that Google Scholars is the most popular tool for finding and getting information. It is closely followed by JSTOR and Shodhganga, which shows that they all have a lot of information and are easy to use. Registry of Open Access Repository (ROAR) and Research Gate are both utilized to a moderate extent, emphasizing their significance in accessing a wide range of repositories and facilitating networking among scholars. INFOPORT, SHERPA/Romeo, and Sci-hub are less commonly utilized systems, with Sci-hub being particularly notable for its legal challenges. Specialized platforms like as Inspira, INSPIRE HEP, PubMed, PubMed Central, certain Wikipedia topics, and Sci-tech have few references, reflecting their narrow usage. Overall, the data indicates that participants have a preference for platforms that are comprehensive, accessible, and provide open access. This decision reflects their varied research demands and approaches.

8.0 Benefits of Open Access Resources

The utilization of DOAJ and DOAR was lauded by participants for a variety of reasons, including enhanced access to a vast array of current research materials, increased visibility of their own work, and enhanced research efficacy. By promoting greater engagement with and dissemination of scholastic work, these advantages highlight the crucial function that open access resources perform in modern research. Suber (2012) notes that open access improves the visibility and citation rates of researchers' work by granting unrestricted access to the most recent studies, free from financial or institutional constraints. As highlighted by Watson (2018) as key benefits of open access publishing, this accessibility improves research efficiency by facilitating rapid access to pertinent materials, encouraging interdisciplinary inquiry, and supporting more novel discoveries. In addition, Borgman (2015) underscores the significance of open access in democratizing knowledge and promoting fair exchange of information, which specifically benefits researchers operating in developing nations and underfunded academia. In accordance with the National Institutes of Health (NIH, 2016), the dissemination of readily accessible research can guide policy decisions and enhance public engagement and policy impact. This results in more informed communities and improved decision-making. DOAJ and DOAR, among other open access resources, are crucial for the advancement of research and the promotion of a more informed and inclusive academic community on a global scale.

9. Challenges Faced

There were a few drawbacks mentioned in addition to the benefits. Some of the biggest problems were unreliable internet connection, not enough help from institutions to use these tools, and not adequate teaching on how to use them correctly. These problems are important because they can make it harder to use open access tools effectively, which could have an effect on the quality and scope of academic study.

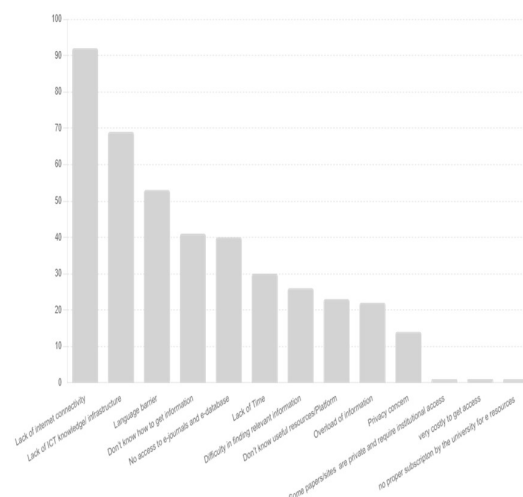


Fig 5: Histogram Of Problems Faced While Accessing E-Resources

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10. Interpretations

Based on the substantial academic and practical advantages that open access resources provide; the data indicates that research scholars at the University of Rajasthan have a substantial level of involvement with such resources. Watson (2018) argues that open access publishing enhances research efficiency and productivity by eliminating financial obstacles and enabling expedited access to current research. Platforms that index open access articles extensively, such as Google Scholar, have had a substantial impact on the information retrieval landscape in academia, increasing the visibility and citation rates of scholarly work, according to Harzing and Alakangas (2016). Nevertheless, the obstacles that have been recognized, including insufficient technological infrastructure and restricted access to information, highlight domains in which establishments may enhance their infrastructure and support in order to improve effectiveness and accessibility (Borgman, 2015). In order for scholars to fully utilize open access resources in their academic and research pursuits, it is critical to address these concerns. Doing so will guarantee that the resources' possible advantages are maximized.

The integration of open access resources into scholarly activities at the University of Rajasthan is thoroughly examined in this chapter. By doing so, it provides a microcosmic perspective on more extensive patterns that are occurring in the academic realm with regard to open access repositories and publications. Additional research may be warranted to optimize support structures and resource provision within academic institutions worldwide, informed by the results of this study. Institutions have the potential to promote increased engagement and productivity, as well as facilitate the equitable exchange of information and democratization of knowledge (NIH, 2016), through the improvement of infrastructure and support for these resources.

11. Conclusion and Recommendations

The comprehensive analysis of the demographic distribution and usage patterns of open access resources among research scholars at the University of Rajasthan reveals significant insights into their preferences and challenges. The dominant enrolment in Science and Social Science indicates strong interest in these fields, while the high awareness of DOAJ and DOAR underscores their prominence as vital resources. However, the inconsistent usage of open access platforms highlights potential barriers, such as limited internet connectivity, lack of technical knowledge, and restricted access to specific e-journals and databases. The data reveals that Google Scholar is the most frequently used platform, followed closely by JSTOR and Shodhganga, reflecting their comprehensive coverage and accessibility appeal. Additionally, platforms like Registry of Open Access Repository (ROAR) and Research Gate are also important for accessing diverse repositories and networking among researchers. To address

the identified challenges, institutions should focus on improving internet infrastructure, offering targeted training, and enhancing resource accessibility. These measures will not only increase the consistent use of open access resources but also maximize their benefits, fostering a more efficient and inclusive research environment. To address the identified challenges, institutions should focus on improving internet infrastructure, offering targeted training, and enhancing resource accessibility. These measures will not only increase the consistent use of open access resources but also maximize their benefits, fostering a more efficient and inclusive research environment. provide resources in multiple languages, and organize regular workshops and training sessions led by library professionals. Encouraging collaboration among scholars, teachers, and library staff, along with conducting regular assessments of awareness and usage, will further enhance the effective use of e-resources. Implementing these recommendations will empower research scholars, enrich their academic pursuits, and contribute to the overall advancement of the academic community.

In order to enhance the efficiency of open-access platforms like DOAJ and DOAR, colleges should implement a comprehensive strategy. Conducting frequent seminars and training sessions facilitated by experienced librarians helps improve knowledge and understanding of these resources. Offering electronic materials in several languages will address the numerous linguistic requirements, while allocating money to enhance internet connectivity and information and communication technology infrastructure will decrease obstacles to access. Promoting collaboration among researchers, instructors, library staff, and students helps enhance the exchange of knowledge and resources. Periodic evaluations should be carried out to measure the levels of awareness, patterns of utilization, and difficulties encountered by research academics. In addition, colleges should provide improved availability of a diverse array of electronic resources, such as access to vital databases and publications through subscriptions. Universities may significantly enhance the adoption of open-access platforms and thus enhance the research output and academic achievement of their academics by applying these approaches.

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