SURVEY ON AWARENESS, USAGE, AND ATTITUDE OF DIGITAL OPEN ACCESS RESOURCES AMONG UNIVERSITY STUDENTS IN BANGALORE AND BELGAUM, KARNATAKA, INDIA

[*]Atiqur Rahman Khan
[**]Reewen George D Silva
[***]Noor Tabreen Aslam
[****]Mohammed Zaid J Desai

Abstract

In the age of digital accessibility, open access resources offer a great deal of advantages especially to the academic community, helping in greater information sharing capability and academic collaboration. This study assesses the awareness, usage and attitude of digital Open Access Resources among university students in the cities of Bangalore and Belgaum, Karnataka, India. A questionnaire was designed, and shared among students studying in Bangalore and Belgaum through Google Forms and 68 responses were received. The study showed that 58.8% of respondents believe that they know what Open Access means. However, 51.5% did not know the difference between open source and open access, 52.9% did not know how to identify digital open access resources online and 55.9% reported that they did not know how to find digital open access resources online. Regarding usage, 63.2% said that they are not currently using or have used digital open access resources. The attitude is highly positive among respondents with 66.2% believing that more resources online should be Open Access. The study highlights the need to increase open access resource identification and awareness in order to facilitate higher usages by the students across various competencies and different academic perspectives.

Keywords: Open Access, Awareness, Usage, Attitude, Students, Survey.

Introduction

Accessibility and availability of information is the first step in promoting collaboration in various fronts to drive innovation. In the digital era, where most information is stored in an online format, it becomes important to analyse the accessibility and restrictions to the research output and resources available. Open Access (OA) literature defined by Peter Suber is digital, online, free of charge and free of most copyright and licensing restrictions [1][2]. Budapest Open Access Initiative refers to Open Access as "free and unrestricted online availability" [3][4]. Open Access resources are a great asset to the academic community because of its unrestricted accessibility by definition. In order to be able to utilise such resources, one must be aware of the existence of such resources, the knowledge of how to use them and the right attitude to be able to fully utilise the maximum potential of the resources. The importance of Open Access resources was highlighted during the recent COVID19 pandemic where rapid research sharing and accessibility was required [5]. Various Open Access Resources such as the Directory of Open Access Journals (DOAJ) exist which enable easy search capabilities into Open Access research. However, the extent of awareness of such directories and other OA resources must be investigated. Previous research in this includes a study on "Awareness and use of Open Access Electronic Information Resources by University students". [6] This study gathered 152 Mangalore university graduate students as sample size and concluded that the majority of their respondents were aware of and was satisfied with Open Access e-resources. However, the limitation of their study is the specific sample size of only graduate students from only Mangalore University. Another study titled "Open Access and Free Resources on the internet: awareness and use during COVID19 Pandemic" [7] consisted of 278 library users, both faculty and students, of Ponda Education Society's (PES) as sample size. The study concluded

*Undergraduate Student, Department of Mechanical Engineering, BMS College of Engineering, Bengaluru, Karnataka, India.
**Undergraduate MBBS Student, Belagavi Institute of Medical Sciences, Belgaum, Karnataka, India.
***Undergraduate student, Department of Electronics and Communication, MVJ College of Engineering, Bengaluru, Karnataka, India.
****Undergraduate MBBS student, Belagavi Institute of Medical Sciences, Belgaum, Karnataka, India.

that 60.43% of their respondents were aware of Open Access Information Resources. This study was also limited by their sample size consisting of respondents only from PES. This study also highlighted that 48.5% of their respondents were not aware of COVID19 open access resources provided by publishers and vendors during COVID19, which further highlights the need to study the extent of awareness of Open Access Resources. Another study titled "Awareness and Use of Open Access Resources in Higher Education and Scholarly Research: Faculties versus Students Perspective" [8] used purposive sampling technique to select 52 students and 17 faculties within 4 research institutes of Rajshahi University, Bangladesh as its respondents. The study concluded that despite having little knowledge on OA concepts such as publication models etc, the majority of faculties from the study were aware of OA repositories and directories. Our study aims to add on to the existing literature by analyzing key parameters such as: the awareness that the respondents perceive they have regarding OA resources versus their actual responses to some questions on OA Resources awareness, their current usage of OA resources, their awareness on how to identify and search for OA resources online and their attitude towards OA resources.

Objectives of The Study

1. Analyze the awareness that the respondents think they have regarding digital OA resources versus the actual awareness regarding OA resources such as difference between Open Sources and Open Access [9] and awareness on searching and identification of digital OA resources online.
2. Analyze current and past usage of digital OA resources among respondents as well as their responses to reasons for lack of awareness of OA resources among people.
3. Analyze the attitude of respondents towards digital OA resources.

Methodology

1. Study Design: A web based cross sectional study designed and the data was collected using a snowball technique among university students from Bangalore and Belgaum located in the state of Karnataka, India from 27 to 30 June 2021.
2. Inclusion criteria: University students with location of studies in Bangalore and Belgaum, Karnataka, India, aged between 17 - 30 years.
3. Exclusion criteria: Anyone who is not a university student with location of studies in Bangalore and Belgaum, Karnataka and aged below 17 years or above 30 years.
4. Questionnaire: A self structured questionnaire consisting of both MCQ and written answer was prepared using Google Forms and was circulated on social media platforms like Whatsapp and Instagram which had the following sections and questions:

    a. Personal Details:
        i. Please enter your email address
        ii. Please enter your Name (optional)
        iii. Please select your age
        iv. Gender
        v. Location of your studies
        vi. Course you are currently doing
        vii. Year of study
    b. Awareness/Understanding of digital Open Access Resources:
        i. Do you know what Open Access means?
        ii. Do you know the difference between Open Access and Open Source?
        iii. Do you know how to identify digital Open Access resources online?
        iv. Do you know how to find digital Open Access resources online?
        v. Are you aware of the advantages of digital Open Access resources?
    c. Usage of digital Open Access Resources:
        i. Are you currently using or have used digital Open Access Resources?
        ii. If yes, please mention some
        iii. Do you think that more people should be made aware of and use Open Access Resources?
        iv. What do you think are the reasons that people are not aware of / using Open Access Resources?
    d. Attitude towards digital Open Access Resources:
        i. Do you think that more resources online should be Open Access?
        ii. If yes, why?
        iii. Do you believe that digital Open Access Resources are beneficial to the student community?

The data collected was analysed by Google Forms on the basis of their responses.

Findings and Data Analysis

The study was done following the above methodology and 68 university students from Bangalore and Belgaum took part in the study. The participants were of various streams like Engineering, Medical, Hotel management, B.Com., Architecture, Law, BBA and B.Sc. The following results were obtained:

1. Socio-demographic characteristics: The mean age of the participants was 21.63 years, with 38 male (55.9%) and 30 female (44.1%) participants. 32 (47.1%) of the participants were studying in Belgaum whereas 36 (52.9%) of them were studying in Bangalore. In the study, 25 participants (36.8%) were studying MBBS, 39 participants (57.4%) were pursuing B.Tech. and a total of 4% of participants were studying Architecture, Law, Hotel Management and B.Com. 1 participant (1.5%) was in 5th year, 48 of the participants (70.6%) were currently in 4th year, 11 participants (16.2%) were in 3rd year, 6 participants (8.8%) were in 2nd year, and 2 participants (2.9%) were from 1st year of their course.

2. Awareness related to Open Access resources: In our study, 58.8% participants reported that they know what Open Access means and 7.4% were unsure of the same. 51.5% of study participants reported that that did not know the difference between Open Access and Open Source, 11.8% were unsure of the posed question, 52.9% of them said they did not know how to identify Digital Open Access Resources, with 26.5% of them being uncertain. Likewise, 55.9% of the study participants conveyed that they did not know how to find Digital Open Access Resources and 19.1% of them were uncertain of the same. Only 33.8% participants were positive that they were aware of the advantages of Digital Open Access Resources whereas 11.8% of them were unsure about it.

3. Usage of Digital Open Access Resources: When enquired about usage of Digital Open Access Resources, 63.2% of the participants told that they are currently not using or have not used Digital Open Access Resources whereas 13.2% of them were uncertain about it. When asked to name a few resources which they have used, participants mentioned Google Scholar, Pubmed, Scimago and other online libraries. 79.4% of the participants felt that more people should be made aware of Digital Open Access Resources and its usage, with 14.7% of them being unsure of the same. Participants opined that lack of awareness, lack of knowledge, fear of malware and lack of clarity were some of the factors leading to people being unaware or not using Digital Open Access Resources.

4. Attitude towards digital Open Access Resources: When investigated about the attitude of the participants regarding Digital Open Access Resources, 66.2% of them were positive that more resources online should be Open Access stating the reason that it was easy, freely available and easily accessible to others whereas 26.5% were unsure about it. Likewise, 77.9% of them believed that Digital Open Access Resources are a beneficial community and 19.1% were unclear about it.

Table 1: Socio-Demographic Characteristics of The Respondents

Demographic Characteristics	Number of Respondents	Percentage (%)
Age		
19 yrs	2	2.9
20 yrs	2	2.9
21 yrs	21	30.9
22 yrs	38	55.9
23 yrs	4	5.9
24 yrs	1	1.5
Gender		
Male	38	55.9
Female	30	44.1
Location of studies		
Bangalore	36	52.9
Belgaum	32	47.1

Course of Study		
Engineering	39	57.4
Medical	25	36.8
Architecture	1	1.5
Law	1	1.5
Bcom	1	1.5
Hotel Management	1	1.5
Year of Study		
1st	2	2.9
2nd	6	8.8
3rd	11	16.2
4th	48	70.6
5th	1	1.5

Table 2: Awareness, Usage and Attitude of Digital Open Access Resources Among University Students

Questions	Yes (%)	No (%)	Maybe(%)
Awareness of Digital Open Access Resources			
1. Do you know what Open Access means	40(58.8%)	23(33.8%)	5(7.4%)
2. Do you know the difference between Open Access and Open Source	25(36.8%)	35(51.5%)	8(11.8%)
3. Do you know how to identify Digital Open Access Resources online	14(20.6%)	36(52.9%)	18(26.5%)
4. Do you know how to find Digital Open Access Resources online	17(25%)	38(55.9%)	13(19.1%)
5. Are you aware of the advantages of Digital Open Access Resources	23(33.8%)	37(54.4%)	8(11.8%)
Usage of Digital Open Access Resources			
1. Are you currently using or have used Digital Open Access Resources	16(23.5%)	43(63.2%)	9(13.2%)
2. Do you think more people should be made aware of and use Digital Open Access Resources	54(79.4%)	4(5.9%)	10(14.7%)
Attitude towards Digital Open Access Resources			
1. Do you think more resources online should be Open Access	45(66.2%)	5(7.4%)	18(26.5%)
2. Do you believe that Digital Open Access Resources are beneficial to the student community	53(77.9%)	2(2.9%)	13(19.1%)

Discussion

Previous studies [6][7] have shown that the majority of their sample sizes were aware of Open Access resources. This is in accordance with the vast majority of the respondents of our study believing that they know what Open Access means. However, the majority of respondents: do not know how to identify the difference between Open Source and Open Access, do not know how to identify digital Open Access resources online, do not know how to find digital Open Access Resources and are unaware of the advantages of digital Open Access resources. This shows that there is a significant lack of key awareness aspects among respondents even though the respondents believe that they know what Open Access means. The majority of respondents are not using or have used Open Access Resources. This is expected as the majority of respondents said that they were unable to identify and find digital Open Access Resources in the previous section of the questionnaire. Majority of respondents believe that more people should be made aware of and use Open Access Resources. This shows that even though the majority of respondents are unaware of the advantages of digital OA resources as opined in the previous section, the majority still recognize the importance of raising awareness and increasing usage of digital OA resources. Lack of knowledge was one of the reasons opined by the respondents for why they think that people are not aware of using OA resources. This is also supported by the responses of the previous section where the majority of respondents stated that they do not know how to identify and search for digital OA resources. Despite significant lack of awareness of factors such as how to find, identify and advantages of digital OA resources, the attitude is highly positive among respondents. Majority believe that more resources online should be Open Access and that digital OA resources are beneficial to the student community.

Conclusion

There is significant lack of awareness of important concepts of digital OA resources such as how to find and identify, however, the majority are highly positive regarding digital OA resources and the need to increase awareness, usage and that more resources online should be Open Access. This study shows that the attitude already exists and that the gap to usage and awareness should be bridged. More awareness needs to be raised on how to identify digital OA resources, how to find them and the various advantages associated with them for the academic community, which in turn could lead to higher usages of digital OA resources.

Conflict of Interest

The authors declare no conflict of interest.

References

1. Suber, Peter. "Open Access Overview", (definition, introduction). (n.d.). http://legacy. earlham.edu/~peters/fos/overview.htm.
2. Open access. Wikipedia. https://en.wikipedia. org/wiki/Open_access.
3. Read the Budapest Open Access Initiative. Budapest Open Access Initiative | Read the Budapest Open Access Initiative. (n.d.). https://www.budapestopenaccessinitiative.org/ read.
4. Copyright & Fair Use: Open Access. LibGuides. (n.d.). https://guides.library.duq. edu/c.php?g=232530&p=1545024.
5. Open access to facilitate research and information on COVID-19. UNESCO. (2020, June 29). https://en.unesco.org/covid19/ communicationinformationresponse/opensoluti ons.
6. Gatu, V. (2016). Awareness and Use of Open Access Electronic Information Resources by University Students: A Study. International Journal of Digital Library Services, 6(1), 113-120. http://www.ijodls.in/uploads/3/6/0/3/ 3603729/10610.pdf.
7. Matonkar, Prayangi Vishal Ms and Dhuri, Keshav R. Dr. (2021). "Open Access and Free Resources on The Internet: Awareness and Use During Covid-19 Pandemic". Library Philosophy and Practice (e-journal), 5153, https://digitalcommons.unl.edu/libphilprac/515 3
8. Mahmud, Abdullah-Al, Akanda, A.K.M., Eamin Ali; Hasan, Md. Nazmul; Haque, Md. Armanul; and Begum, Dilara, (2020). "Awareness and Use of Open Access Resources in Higher Education and Scholarly Research: Faculties versus Students Perspectives". Library Philosophy and Practice (e-journal), 4516, https://digitalcommons.unl. edu/libphilprac/4516.
9. Open Source vs. Open Access (vs. Free) (2016). "Geeky Artist Librarian". https://geekyartistlibrarian.wordpress.com/201 4/06/26/open-source-vs-open-access-vs-free/.