

Awareness of Electronic Information Resources among Integrated Postgraduate Students: A Study of the University of Hyderabad

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Abstract: *Contemporary higher education is increasingly shaped by digital technologies, leading to a substantial shift toward electronic information resources (e-resources) in academic libraries. This study examines the level of awareness and utilization of e-resources among fourth- and fifth-year integrated postgraduate science students at the Indira Gandhi Memorial Library, University of Hyderabad. A structured questionnaire was administered to 215 students, of which 200 valid responses were analyzed. The results reveal high awareness of e-books (96%), e-journals (95%), and e-databases (89.5%), whereas familiarity with open access resources, institutional repositories, and e-research reports remains limited. Interpersonal communication is identified as the primary source of awareness (69.3%), while librarian assistance contributes minimally (12.2%). The study further indicates that participation in library awareness programs significantly enhances students' ability to retrieve relevant information and utilize digital resources effectively. The findings highlight the need to strengthen user education initiatives, improve librarian engagement, and promote lesser-known resources to maximize the effective use of e-resources.*

Keywords: E-resources, User education, Information literacy, Indira Gandhi Memorial Library, University of Hyderabad, Integrated postgraduate students.

1. Introduction

The advancement of information and communication technologies has significantly transformed academic libraries, leading to a shift from print-based collections to digitally enriched environments. Electronic resources, including e-books, e-journals, databases, and electronic theses, provide users with efficient, timely, and remote access to scholarly information. These resources play a crucial role in supporting the academic and research needs of postgraduate students, research scholars, and faculty members.

However, the effective utilization of electronic resources depends largely on user awareness and information literacy skills. Despite the availability of advanced digital resources in academic libraries, many users remain unaware of their full potential, particularly in accessing open access materials, institutional repositories, and specialized databases.

To enhance access and reduce subscription costs, many academic institutions have adopted library consortia such as INDEST-AICTE and UGC-INFONET, which provide access to a wide range of scholarly databases and electronic journals. These initiatives aim to strengthen research output and improve the quality of higher education in India.

In this context, academic libraries also conduct orientation and training programs to improve user awareness and competencies in accessing electronic resources effectively. Therefore, it is important to assess the level of awareness and utilization of e-resources among students to identify gaps and improve library services.

Against this background, the present study examines the awareness and utilization of electronic information resources among integrated postgraduate students at the University of Hyderabad.

1.1 University of Hyderabad (UOH)

The University of Hyderabad (UOH) was born in 1974 in 'The Golden Threshold' (GT) in the heart of the city, which was bequeathed to the university by Sarojini Naidu's family. The Golden Threshold housed the university until it moved into its sprawling 2,500-acre campus in the Gachibowli area of C.R. Rao Road.

Golden Threshold also housed the Sarojini Naidu School of Performing Arts, Fine Arts, and Communication, the only school in the university to be named after an individual. Currently, the center for distance and virtual learning functions from its premises. The university has developed the place into a cultural hub.

Vision:

The Institution of Eminence (IoE) status, accorded to the University of Hyderabad (UoH) in September 2019, is a recognition of UoH's standing, ability, and potential to move into the league of the world's best institutions. The university views IoE as a good opportunity in its history to leverage its existing reputation, practices, and services to catapult itself into the best and highest leagues globally.

1.2 Science Sections in UOH and their Establishment Year

"There are twelve schools and various departments at the University of Hyderabad. The science departments and their

sections are as follows:"

1.3 School of Physics established in 1977

1.4 School of Life Sciences

This school was established in 1977 and has five different departments. They are:

- 1) Department of Biochemistry
- 2) Department of Plant Sciences
- 3) Department of animal Biology
- 4) Department of Biotechnology & Bioinformatics
- 5) Department of Systems & Computational Biology

1.5 School of Engineering Sciences & Technology was established in 2008

1.6 School of Medical Sciences in 2007

1) Indira Gandhi Memorial Library (IGML):

The Indira Gandhi Memorial Library (IGML) is the main library in UOH; it is the central facility to cater to the information needs of the teachers, research scholars, and students of the university.

This library was the 1st fully automated library among the universities in the country way back in 1995. The main objective of the library is to provide the most effective learning resources to the teachers, research scholars, and the students of the university.

According to Dr. Sarvepalli Radhakrishnan (Education Commission - 1948)

"The library is the heart of all university work, directly so as regards its research work and indirectly as regards its educational work, which derives its life from research work.

Scientific research needs a library as well as its laboratory, while for humanistic research, the library is both library and laboratory in one."

2) Online Public Access Catalogue (OPAC)

The library has created an electronic learning environment by establishing an online public access catalog [OPAC], subscribing to printed and online databases, providing internet facilities, and creating a laptop zone with Wi-Fi facilities without power interruption. The library is providing internet browsing facilities to all the users with 30 PCs apart from 12 PCs provided for searching OPAC (Online Public Access Catalogue) in the stack/reading areas.

Web OPAC (i-PORTAL, a web-based interface) terminals are placed in the library reading hall on the ground floor of the library. Web OPAC can be accessed by typing/pasting the link.

URL:

http://igmlnet.ouhyd.ernet.in:8000/cgi-bin/gw20101_1/chameleon/ on web browser.

Advanced OPAC "Chemo" can be accessed from anywhere by clicking the OPAC link given on the library website: <http://igmlnet.uohyd.ernet.in:8000>.

1.7 Conferences/Seminars/Webinars conducted by IGM Library

The IGM Library, University of Hyderabad, regularly organizes online demonstrations, training programs, user awareness sessions, workshops, and webinars, which are communicated to all users via email and the library website. Notable initiatives included demonstrations on plagiarism detection tools such as DrillBit and Turnitin, training on e-resource platforms including EBSCO HOST, MyLOFT, Project MUSE, and IEEE Xplore, and workshops on academic writing and publishing. Thematic events were also conducted, such as the National Librarian Day webinar commemorating the 133rd birth anniversary of Dr. S. R. Ranganathan and the Research Excellence Summit with the Taylor and Francis Group. These programs collectively enhanced user awareness, strengthened research support services, and contributed to the professional development of both staff and students.

1.8 Centre for Integrated Studies (CIS)

In the process of the fulfilment of the set objects of the university, a Centre for Integrated Studies (CIS) was established in the year 2006-07 to offer 5-year integrated master's degree programs in several subjects with the goal of imparting specialized education to the students on completion of their +2 level of education. The college offers 5-year integrated master's degree courses in science, humanities, economics, and social science subjects. It was renamed as College for Integrated Studies in 2014.

2. Review of Literature

Existing research highlights the critical role of awareness in determining the effective use of e-resources. Studies by Baro et al. (2020) indicate that user awareness significantly influences access and utilization patterns. Deng (2010) discusses evolving trends in digital resource usage within higher education institutions. Dhanavandan (2014) emphasizes that user knowledge directly impacts the extent to which e-resources are utilized.

Further studies reveal that although awareness of commonly used resources is relatively high, knowledge of specialized tools such as open access repositories remains inadequate. This underscores the need for continuous user education and systematic awareness programmes in academic libraries.

3. Objectives of the Study

The study aims to:

- 1) Determine the level of awareness of different types of e-resources among students.
- 2) Identify the channels through which students gain awareness of e-resources.
- 3) Assess the effectiveness of library awareness programmes.
- 4) Examine the role of e-resources in supporting academic activities.

4. Methodology

A descriptive survey method was adopted for this study to examine the awareness and utilization of electronic information resources among integrated postgraduate science students of the University of Hyderabad.

The study population comprised fourth- and fifth-year integrated postgraduate students. A total of 215 students were selected using a convenience sampling technique, out of which 200 valid responses were received and analysed.

Data were collected using a structured questionnaire designed to obtain information on awareness levels, usage patterns, and

sources of awareness of electronic resources. The questionnaire consisted of closed-ended questions.

The collected data were analyzed using simple statistical techniques, primarily percentage analysis, to interpret and present the findings in a meaningful manner.

5. Results

5.1 Awareness of E-Resources

This table shows how knowledgeable fourth- and fifth-year Science Integrated Postgraduate students are about e-resources. Out of 215 respondents, 200 responses were received.

Table 1: Awareness of E-Resources

Electronic Resources	Awareness regarding E-Resources		
	Yes	No	Total responses out of 200
E-Books	192 (96%)	8 (4%)	200 (100%)
E-Journals	190 (95%)	9 (4.5%)	199 (99.5%)
E-Databases	179 (89.5%)	19 (9.5%)	198 (99%)
E-Newspapers	171 (85.5%)	28 (14%)	199 (99.5%)
E-Theses and Dissertations	165 (82.5%)	32 (16%)	197 (98.5%)
E-Conference Proceedings	121 (60.5%)	78 (39%)	199 (99.5%)
E-Magazines	47 (23.5%)	149 (74.5%)	196 (98%)
E-Research reports	35 (17.5%)	162 (81%)	197 (98.5%)
Free Internet resources	52 (26%)	148 (74%)	200 (100%)
Open Access Resources	57 (28.5%)	143 (71.5%)	200 (100%)
Institutional Repositories	51 (25.5%)	149 (74.5%)	200 (100%)

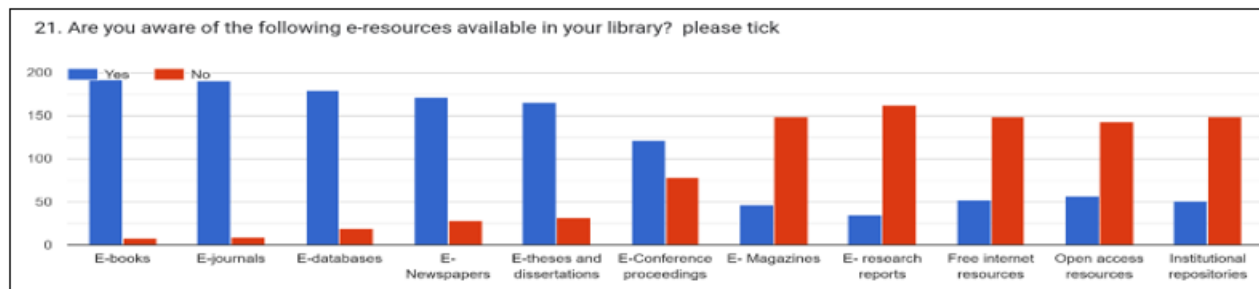


Table 1 presents the level of awareness of electronic resources among integrated postgraduate students. The findings indicate that awareness is highest for e-books (96%) and e-journals (95%), followed by e-databases (89.5%) and e-newspapers (85.5%). Awareness of e-theses and dissertations (82.5%) is also relatively high.

However, awareness of e-magazines (23.5%), institutional repositories (25.5%), and open access resources (28.5%) is comparatively low. This indicates that students are more familiar with commonly used academic resources, while awareness of specialized and alternative scholarly resources remains limited.

5.2 Methods of Awareness

Table 2: Methods of Awareness

Awareness Methods	Responses
Through University/ Library website	108 (57.1%)
Directly through publisher/ vendor website	54 (28.6%)
Through search engines like Google, etc.	46 (24.3%)
By searching bibliographic database	75 (39.7%)
Announcements in journals	58 (30.7%)
Cited in report/ journals/ conference papers	43 (22.8%)
Referred to me by the librarian	23 (12.2%)
By browsing or looking for materials	57 (30.2%)
By personal communication with friends, subject experts and resource persons	131 (69.3%)

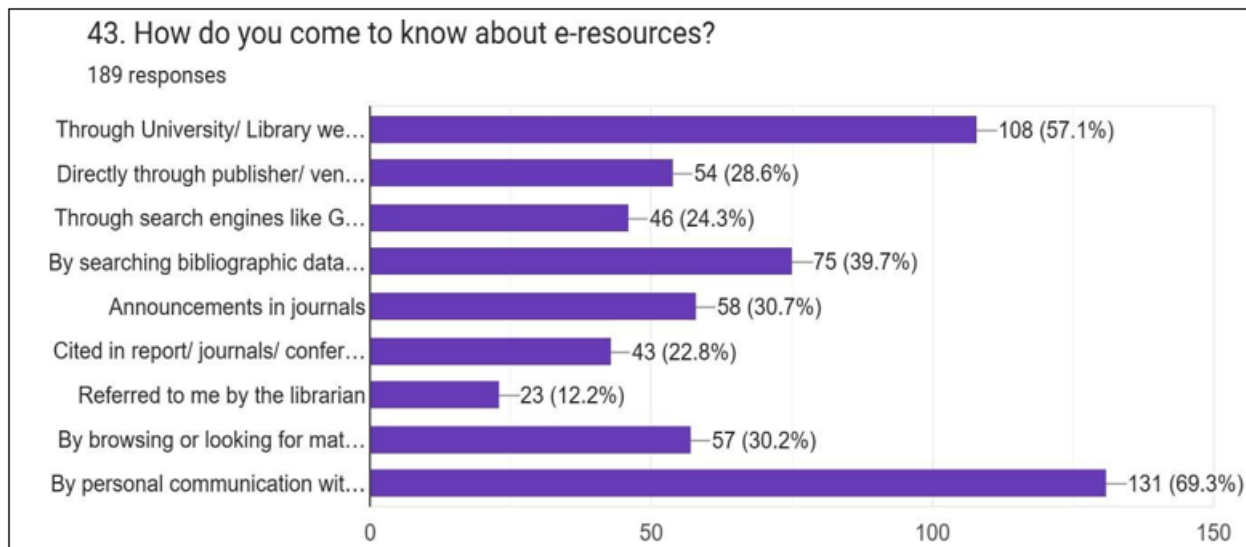
Table 2 shows that interpersonal communication plays the most significant role in creating awareness of e-resources (69.3%). This is followed by university/library websites (57.1%) and bibliographic databases (39.7%).

Other sources include announcements in journals (30.7%), browsing materials (30.2%), publisher/vendor websites (28.6%), and search engines such as Google (24.3%). The least cited source is librarian assistance (12.2%), indicating a

limited direct role of library professionals in promoting e-resources.

channels are more influential than formal library guidance in spreading awareness among students.

These findings suggest that informal communication



5.3 Benefits of Awareness Programmes

Table 3: Benefits of Awareness Programmes

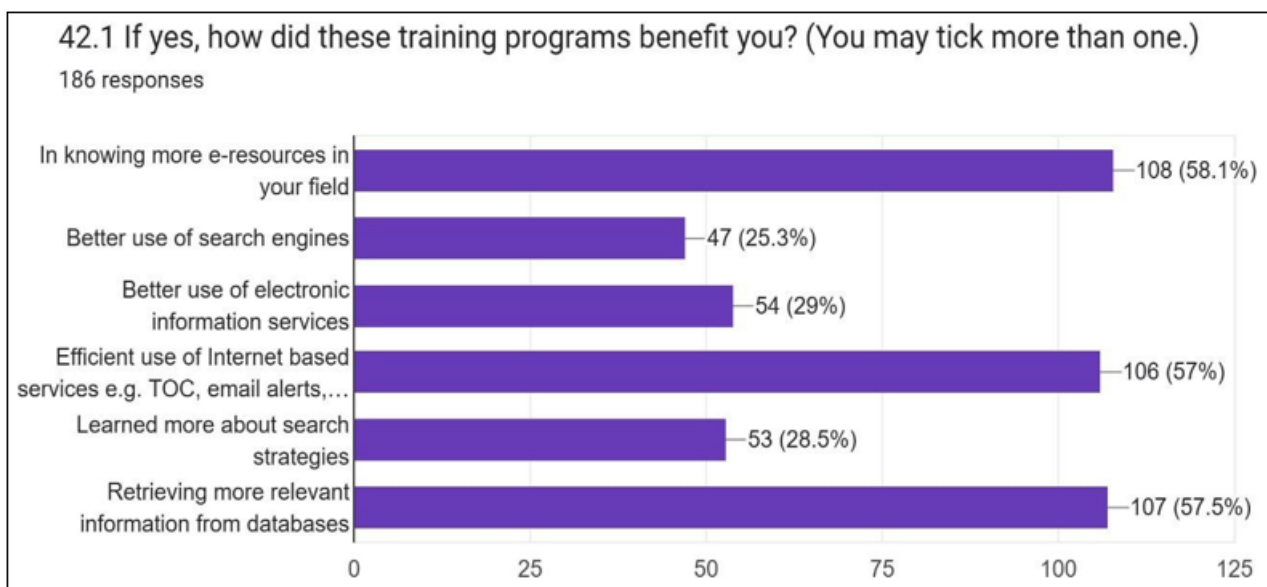
Benefits	Responses
In knowing more e-resources in your field	108 (58.1%)
Better use of search engines	47 (25.3%)
Better use of electronic information services	54 (29%)
Efficient use of Internet based services e.g. TOC, email alerts, etc.	106 (57%)
Learned more about search strategies	53 (28.5%)
Retrieving more relevant information from databases	107 (57.5%)

The Indira Gandhi Memorial Library conducts annual awareness programs to inform users about its services and facilities. A total of 191 students (96.5%) participated in these programs.

The study reveals that 96.5% of students participated in library awareness programmes conducted by the Indira Gandhi Memorial Library. The findings indicate that these programmes significantly improve users' ability to access and utilize electronic resources.

Major benefits include improved knowledge of subject-specific e-resources (58.1%), effective retrieval of relevant information from databases (57.5%), and efficient use of internet-based services such as alerts and TOC services (57%).

These results highlight the importance of structured user education programmes in enhancing information literacy and promoting effective use of electronic resource.



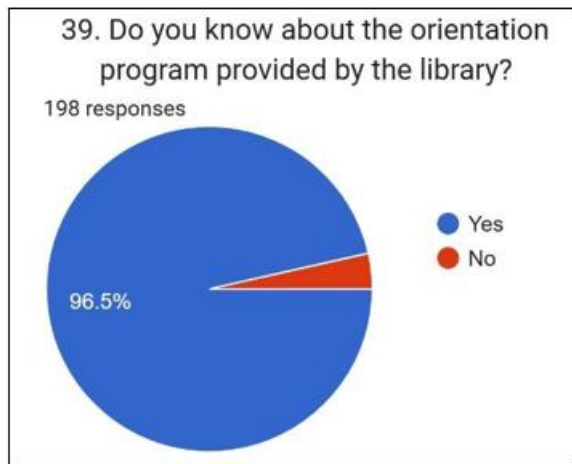


Figure 1

The survey results demonstrate a very high level of awareness among respondents regarding the orientation program provided by the library. Out of 198 responses, 96.5% indicated that they were aware of the program, while only a small minority reported otherwise. This overwhelming majority suggests that the library's communication strategies—through email notifications, website updates, and direct engagement—have been highly effective in reaching users.

The results underscore the success of the library's outreach efforts in promoting orientation programs, which in turn contributes to improved user engagement and effective utilization of library facilities.

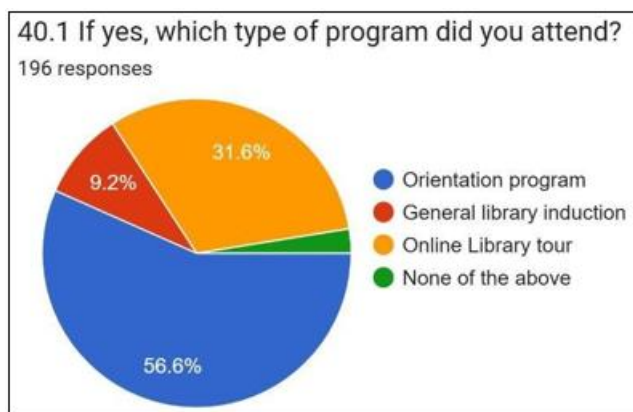


Figure 2:

Out of the 196 respondents who reported attending library-related programs, the majority (56.6%) participated in orientation programs, indicating that structured introductory sessions remain the most widely accessed form of user engagement. Online library tours accounted for 31.6% of responses, reflecting a significant interest in virtual familiarization with library services. General library induction programs were attended by 9.2% of respondents, while a small proportion selected "None of the above." This distribution highlights that orientation programs and online tours together constitute nearly 88% of participation, underscoring their central role in facilitating user awareness and effective utilization of library resources.

6. Discussion

The study suggests that current awareness programmes may need to be expanded and diversified. Incorporating hands-on training sessions, digital tutorials, and continuous engagement strategies could further improve awareness levels, particularly for underutilized resources.

Overall, the findings underscore the importance of strengthening user education, improving librarian-user interaction, and promoting a broader range of e-resources. By addressing these aspects, academic libraries can ensure that students fully benefit from the extensive digital resources available to them, thereby enhancing their academic performance and research capabilities.

7. Major Findings

- 1) Awareness is high for commonly used e-resources such as e-books and journals.
- 2) Awareness of specialized and open access resources remains limited.
- 3) Informal communication is the primary channel of awareness.
- 4) Librarian involvement in awareness creation is relatively low.
- 5) Awareness programmes positively influence user skills and resource utilization.

8. Recommendations

Based on the findings of the study, the following recommendations are suggested to improve awareness and effective utilization of electronic information resources among postgraduate students:

- 1) **Strengthening User Awareness Programs**
Libraries should conduct regular and structured orientation programs, workshops, and training sessions focusing not only on commonly used e-resources but also on lesser-known resources such as open access platforms, institutional repositories, and e-research reports.
- 2) **Enhancing Librarian-User Interaction**
Librarians should take a more proactive role in guiding students by offering personalized assistance, reference services, and research support. Increased interaction can significantly improve awareness levels and resource utilization.
- 3) **Promotion of Open Access Resources**
Special initiatives should be undertaken to promote open access resources, as awareness in this area is relatively low. Libraries can organize dedicated sessions highlighting the importance and benefits of open access materials.
- 4) **Utilization of Digital Platforms for Awareness**
Libraries should leverage digital communication tools such as email alerts, social media, mobile applications, and library portals to disseminate information about available e-resources and services.
- 5) **Integration of Information Literacy in Curriculum**
Academic institutions should consider incorporating information literacy and e-resource usage training into the curriculum to ensure that students develop essential

research and digital skills.

- 6) **Development of User-Friendly Guides and Tutorials**
Libraries should prepare simple user manuals, video tutorials, and step-by-step guides to help students navigate various e-resources independently.
- 7) **Continuous Evaluation of Awareness Programs**
Feedback should be collected regularly from students to assess the effectiveness of awareness programs and to identify areas for improvement.
- 8) **Improved Access and Infrastructure**
Ensuring uninterrupted internet access, sufficient computer terminals, and remote access facilities will enhance the usability of e-resources

9. Conclusion

The study reveals that postgraduate students have a high level of awareness of commonly used electronic resources such as e-books, e-journals, and e-databases. However, awareness of specialized resources including open access materials, institutional repositories, and e-research reports remains limited.

The findings further indicate that interpersonal communication is the most influential source of awareness, while the role of librarians in promoting electronic resources is comparatively low. Participation in library awareness programmes conducted by the Indira Gandhi Memorial Library has significantly improved students' ability to access and utilize electronic resources effectively.

The study highlights the need to strengthen user education initiatives and enhance the proactive involvement of library professionals in promoting a wider range of electronic resources. Such efforts will contribute to improved information literacy, better resource utilization, and enhanced academic and research outcomes among postgraduate students.

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