

A REVIEW OF INFORMATION ACCESS THROUGH OPAC IN UNIVERSITY LIBRARIES

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Abstract

The study analyzes a number of studies that have been conducted to look at how university libraries use their online public access catalogs (OPAC). In this paper the different types of OPAC literature have been reviewed. The drawbacks of utilizing OPAC in libraries are discussed. The study was reviewed the articles that had been published during the years (2000 to 2023) on the reference.

Keywords: OPAC, Web OPAC, Library Automation, Library users.

Introduction

All disciplines of technology are currently evolving. We learn about and see examples of new technologies every day. By utilizing technology, libraries are also transforming from traditional to modern services for users. OPAC which allows users to identify, locate, make available, and reserve the necessary documents in a library's collection both inside the library and remotely, is the modern version of the traditional catalog card. OPAC and Web-OPAC are the two types of OPACs utilized in libraries. OPAC can be used at a library, inside the boundaries of an organization, or via a local area network (LAN), while another form, Web-OPAC, can be accessed remotely from any location. By using OPAC, the fourth rule of library science may be fully implemented and the user's time is saved. Software for managing libraries is widely accessible. The OPAC software is accessible to library users. A paradigm shift away from the card catalog has been brought about by the availability of needed documents from the library

collection by author, title, and subject in OPAC. OPAC database records are normally created in the MARC format. The entries consist mostly of succinct bibliographic summaries, augmented by a few restricted frequently used subject descriptors from the Library of Congress Headings for the subjects and an index number, typically a number between (1 and 10) Classification in Dewey decimal or Library of Congress. Consequently, the database records consist of only the author's name, title, year of publication, and subject are needed for searches. Because of the massive growth of digital information and the introduction of web search engines, library use is steadily declining. It has also had a significant impact on how library patrons conduct searches. These days, people prefer Google searches to OPAC searches. Orissa's higher education institutions' libraries are in a developing stage, with adequate automation, automated infrastructure, and significant financial investment in the acquisition of library materials. The output of the current study was to find out what users thought of the OPAC system. The study's conclusions would be useful in figuring out how library patrons in a few chosen higher institutions in Lagos State feel about OPAC.

LITERATURE REVIEW

According to Ramesh Babu and Ann O'Brien (2000) when conducting subject searches, it is usually necessary to know the first word of the relevant subject heading or term. However, in all six of these scenarios, subject headings may be accessed via keywords if they are present in the bibliographic record. When available, these headers allow for keyword searches even when a separate internal topic index is being used, as is the case in many talis libraries.

Nearly three-quarters (75%) of the libraries in the study had magazines incorporated in their OPACs, according to Ramesh Babu and Tamizchelvan's 2003 description of the libraries. However, they noted that these OPACs were still in the development stage. The complete collection has not, thus, been discussed. All items will be added gradually, according to plan.

Boolean operators should be used to combine terms while searching electronic databases, according to Dinet, Favart, and Passerault (2004) This could lead to a more precise, efficient, and straightforward search and retrieval of the necessary bibliographic information.

Tamal Kumar Guha and Veena Saraf (2005) The British Council Library in Kolkata was sought for the purpose, and permission to do the research was obtained. LibSys (version 4.0), a product of LIBSYS Corp in New Delhi, was used for developing an online catalogue system about three years ago. At the time of the evaluation, the library had four OPAC terminals connected via a Local Area Network.

Researchers Eng Pwey Lau and Dion Hoe-Lian Goh (2006) found that enquiries concerning authors and titles were more common than those about topic matter. This is intriguing since author or title searches are more accurate and necessitate that the user know the precise author information or the precise first few words of a title in order to do a successful search. The results suggest that some user groups were very aware of what they were looking for, which is somewhat in line with Lombardo and Condic's (2000) findings that the majority of OPAC users could tell whether they needed an author or title search but were unsure of when to use a subject search.

According to Luis Ville'n-Rueda et al. (2007) the percentages of consultation by professors and library staff (11 percent and 10 percent, respectively) are comparable. It would seem that library personnel exclusively use the catalog to address particular issues of information search relevant to their duties. Although they may have the necessary infrastructure in their offices to independently consult the catalog, the low percentage of professors suggests that they typically conduct their searches through intermediaries, enlisting the help of library staff, or by physically visiting the library. Regarding the type of consultation made, quite comparable outcomes were found: Over the course of a year, 49 percent of searches were analytical, while 51% were the result of surfing.

Ansari (2008) the report states that a substantial majority of users at five institutional libraries in New Delhi use the OPAC as a search engine to locate materials. His study found that the majority of users used the OPAC independently. This indicates that

patrons of those five institutional libraries have successfully completed the library's information assistance training program. OPAC can be used by users without help from library staff.

Papadakis and Stefanidakis (2008) User-friendly and productive OPAC navigation based on semantic subject headers has been explored. AJAX technology and a web programming language were employed in this investigation. According to the findings GUI displays Subject title organizational structures and this feature attracts users and helps them develop their fields of inquiry. Furthermore, the study discovered that having numerous paths for extracting information allows researchers to accomplish their goals efficiently and optimally.

In a similar vein, Mulla K.R and M.Chandrashekara (2009) discovered that 81.61% of their 1,338 respondents use the OPAC to search for library materials. However, 40.02% of Devi Ahilya University library users consult library staff to get access to the materials they require in the library, while 20.60% check the card catalogue and 24.91% consult their peers. This investigation shows that a sizable portion of Devi Ahilya University users are unable to conduct independent searches for the information they need to resolve their informational problems. Possibly as a result, Mulla and Chandrashekara's research indicated that consumers anticipated the library would assign staff to help them when they searched for and obtained records of the papers they needed when Devi Ahilya University's OPAC debuted. It's likely that such libraries have finished their retroactive conversion operations even if their poll doesn't indicate that respondents use card catalogues.

Shivakumar (2011) The OPAC searching method was substantially improved as users did queries on the OPAC similar to major search engines. As a result, customers expected OPACs to function similarly to "Google" in terms of information retrieval. At the same time, they were unfamiliar with how the material was organized in the OPAC and how the underlying structure influenced search results. While users searched the OPAC in certain manners similar to that of internet search engines, their searches were frequently fruitless. As a result, they realized that the document they were looking for was not in the library.

Madhusudhan and Aggarwal (2011) evaluate the different elements and characteristics of the internet-based Online Public Access Catalogue (OPAC) of Indian Institute of Technology libraries in India using a specifically designed assessment checklist. The study looked into a number of web-based OPAC components, and page layout received the highest average rating (93.33%). The libraries at the IITs are expected to fill in the gaps and create entirely functional web-based OPACs very soon employing web version 2.0 and 3.0 technology.

According to Thanuskodi's (2012) research, users of OPAC are generally satisfied to a high degree. It shows that out of 208 users, around 19.1 percent of them were entirely happy with using the OPAC, while over half of the respondents expressed satisfaction and one-third expressed moderate satisfaction. Only 6.25% of users were unhappy with the OPAC, and only 2.40% were really unhappy. It is evident that only the majority of users are content with how OPAC functions.

In response to a question about the general usability of OPAC, Shiv Kumar and Ranjana Vohra (2013) found that only a small percentage of users 7 (4.6%), 24 (15.9%), 53 (35.1%), and 54 (35.8%) found it to be very easy to use, moderately easy to use, or difficult to use. The remaining users 13 (8.6%) found it to be extremely difficult to use. OPAC was rated as being somewhat easy to use by 35.1% of users, while the majority of users (45%) said it was difficult (or extremely difficult) to use. Users occasionally obtain too few or too many results, as was previously mentioned in Sections 6.10 and 6.11; they are ill-equipped to adequately filter or expand search results. Users faced challenges as a result of their ignorance of OPAC's potential. Such users often are unable to use all search tools and to use efficient search techniques. In addition, users of OPAC are accustomed to the ease of Web searching. As a result, people believe that using OPAC is difficult or complex.

According to Lakshmi Sankari et al.'s (2013) According to the research, 124 (95.38%) of respondents approached the OPAC by author, 119 (91.54%) by title, 43 (33.08%) by subject, and 25 (1.92%) and 29 (22.31%), respectively, by accession and categorization numbers. In terms of the series search, about 41 (31.54%) respondents did it, while 18 (13.85%) of respondents used the ISBN. The query route through the author string is the

most common when comparing all the user ways, followed by the title, subject, series, categorization number, and call number.

According to Gohain, Anjan and Saikia, Mukesh (2013) the department of Computer Science and Engineering had the highest level of satisfaction with the effectiveness and caliber of OPAC Services, followed by Civil Engineering 24.36%, Electronics & Communication Engineering 23.33%, and then Mechanical Engineering 18.46%, with 103 those responding. Because there were fewer students in total than in the other departments, Student satisfaction in the department of food engineering and technology was significantly lower than in the other departments, at 7.44%(29).

Hilal Ahmad (2014) among users at the Indian Institute of Technology, Delhi, IIT Kanpur, and Kashmir University. According to the author, while RFID technology has been successfully installed at Kashmir University via Virtual, it has yet to be effectively implemented at a few IITs. However, the majority of users in select IITs use OPAC, whereas usage of OPAC in Kashmir University is comparatively lower, and the study shows that all picked libraries still maintain card catalogues, although with minimal use. The current study will aid in improving the use of OPAC in certain libraries. The other libraries will also use it for investigating the data.

In their 2015 study Olufunmilayo Iyabo Fati and Airen Adetimirin discovered that 58.3% of respondents in OAU and 55.2% of those in UNILAG never used their library's OPAC. OPAC use is minimal, with just 16.2% and 19.2% of respondents at OAU and UNILAG, respectively, reporting high levels of usage.

Gautam Kumar Sarma (2016) the features of various integrated library software versions and OPAC modules were compared. The researcher examined previous studies and practiced on himself. According to the findings, all software OPACs offer similar services such as log-in, book search, profile/transaction information, document reservation and hold onto the facility, book suggestion, and the comment box.

Mukut Sarmah and Swarnika Dey (2016) This analytical study of online based OPAC obtainable in all Central University library portal is a step toward studying the amount of Central University that have online based OPAC and analyzing the facilities supplied by 8 Central University that were examined using the check list. According to the

study's findings, the majority of Central University are still unable to deliver online based OPAC services to their customers. The Central University that have online based OPAC were not optimal for addressing user demands, with obvious design restrictions, a lack of aid in the graphical representation of online based OPAC, and a shortage of resources. Improving the interface cannot be the exclusive focus of development efforts. Explain the usage of OPAC according to the aforementioned record's frequency for Swaminathan's 2017 work. According to the results, 85 (55.20%) of those surveyed use it every day, including 68 (58.62%) college pupils and 17 (44.74%) staff members. OPAC is used once a week by 31 respondents (20.13%), including 8 academic members (21.05%) and 19 students (19.83%). Eight (5.19%) of the respondents used OPAC once each month. The responders' justification for utilizing OPAC. 23 of the 38 faculty respondents (60.53%) and 78 of the 116 respondents (67.24%) highly support utilizing the OPAC to find out whether certain materials are available. 27 faculty members (71.05%) and 81 (69.83%) highly support utilizing OPAC to track down newly arrived materials. 1 (2.63%) of staff members and 6 (5.17%) of college pupils rarely use the OPAC system.

According to Vijayakumar and Manasa's (2018) description, the library OPAC is used often. OPAC was indicated by 50 respondents (45.46%) as being used once daily, twice weekly by 18 respondents (16.36%), once weekly by 30 respondents (27.27%), and infrequently by 12 respondents (10.91%).

Joginder Singh and Rajinder Kumar (2019) OPAC explained at many universities library in Haryana. A total of 39.3% of customers went to the library in KUK to get documents copied, 89.7% of users in CUH were aware of the OPAC service, 24.8% of users in MDU learned how to use the OPAC system on their own, 30% of users used the OPAC system on a weekly basis, 46.3% of learners used the OPAC system to check for the availability of necessary documents in MDU, 82.2% of used a simple search method in CUH, 45.2% and 49.4% of users were content with the current OPAC facilities in MDU, whereas 39.8% of users felt the KUK OPAC terminals to be lacking.

Uplaonkar (2020) conducted a case study of the OPAC services provided by the Agricultural Sciences University Library in Dharwad, Karnataka. A structured

questionnaire was distributed to 80 faculty members, and it was observed that the majority of Dharwad University of Agricultural Sciences faculty members (79.66%) are well acquainted with the use of OPAC and use it on a regular basis to access resources from the library.

Isau Adegun and colleagues (2021) Inform respondents that 43 (33%) of them used the OPAC to discover articles and other reading resources. Twenty of the respondents or 15.4% use the OPAC to discover the library's new arrival list, while 30 of them use it to check the availability of books. Additionally, 15 (11.6%) of the respondents utilize it to renew library loans. Only 9 (6.9%) of the respondents use it to find out where necessary papers are, while 13 (10.1%) use it to discover out if there are any other extra resources in the library.

According to Shahzeb Mugheri et al. (2022) users of the web OPAC often respond to document access points. The results shown in the table, 401 (95.0%) respondents stated there was a search provision with titles on web OPAC, while 21 (4.9%) answered no, 382 (89.9%) said there was a search provision with the subject, and 38 (8.9%) said no, there was a document search facility. The remaining 25 users (5.9%) said they did not have access to documents searched by author. 150 (35.3%) of the 268 online OPAC users who replied said "no," despite their being a facility to search papers with additional keywords.

According to Yogesh et al. (2023) The respondents used OPAC for this reason. OPAC's usefulness at the library is indicated by how frequently it is used. Out of a total of 184 users, 77 (41.08%) respondents highly support utilizing OPAC to find out whether papers are available. 53 people, or 28.08 percent, highly support utilizing OPAC to find out when new papers arrive. 25 (13%) respondents said they use the OPAC system to find out the bibliographical information for titles or documents, whereas 42 (22.08%) of respondents said they only sometimes use it for time-consuming tasks.

Choudhary (2022) The NSUT is a renowned state university in India that is part of the Government of the National Capital Territory (GNCT). The set theory and statistical methods were utilized to analyze the behavior of library patrons. The log data for web-OPAC and book lending are associated with 1195 (18%) and 2174 (32.8%) library

users, respectively. In any given year, 10.3% of users successfully used web-OPAC services by logging into software. This proportion will be 1.3% in 2020 and 9.9% in 2021. In both years, 0.8% of web-OPAC service customers were successful. During the two years, a total of 11.9% of undergraduate engineering students successfully used the web-OPAC service. The proportion of consumers who benefited

Amadi and colleagues (2023) the study looked into the use of an online public access catalogue (OPAC) as a retrieval tool for information resources in some selected university libraries in Nigeria's South-South region. The study used a descriptive one survey research planning with a questionnaire as the data collection tool. The research's population consists of 204 frequent users who were chosen at random from the university libraries under examination. Only 169 of the 204 surveys issued were returned. Data collected were examined using descriptive statistics, which included mean and percentage mean scores of 2.5 and above, as well as a percentage score of 50%.

Devanand Mishra and Anurag Borpatra Gohain (2023) The descriptive survey method is used in the study at LNB Library, Dibrugarh University, along with input from learner on their trained with the OPAC. A structured questionnaire was developed and distributed to Dibrugarh University users (Faculty/Research Scholars/UG/PG Students). A total of 84 completed questionnaires were received, accounting for 56 percent of the overall population of the research. According to the findings, library orientation/Information literacy workshops are beneficial in increasing user credibility (55.99%) in OPAC searches.

Rajasekaran and colleagues (2023) The research article investigates how contemporary-day library services benefit users, as well as the modern and innovative services given by academic libraries. Web-based user education provides users with a high level of involvement and flexibility. Users must be familiar with basic library terminology as well as how to use the library's online catalog and other reading materials. Users must be aware of the databases and other e-resources, and they must be able to find information using relevant search engines. Web Opac provides access to library assets

and access to the uses to use. Web OPAC categorizes library books and other reading materials by subject by assigning a call number. Some search capabilities are restricted to users and guests.

Kannaujia (2023) This paper addresses issues with the BHU central library automation software's Online Public Access Catalogue (OPAC) service. To learn about the knowledge of information and communication technology among Banaras Hindu University students. The questionnaire mode data gathering approach is used in this investigation. According to the data gathered, only 29 (34.52%) users are wonderfully abled in web surfing and 37 (44.05%) users are in good condition to web browse out of 84 respondents out of 100 questionnaires issued.

Aim of the Study

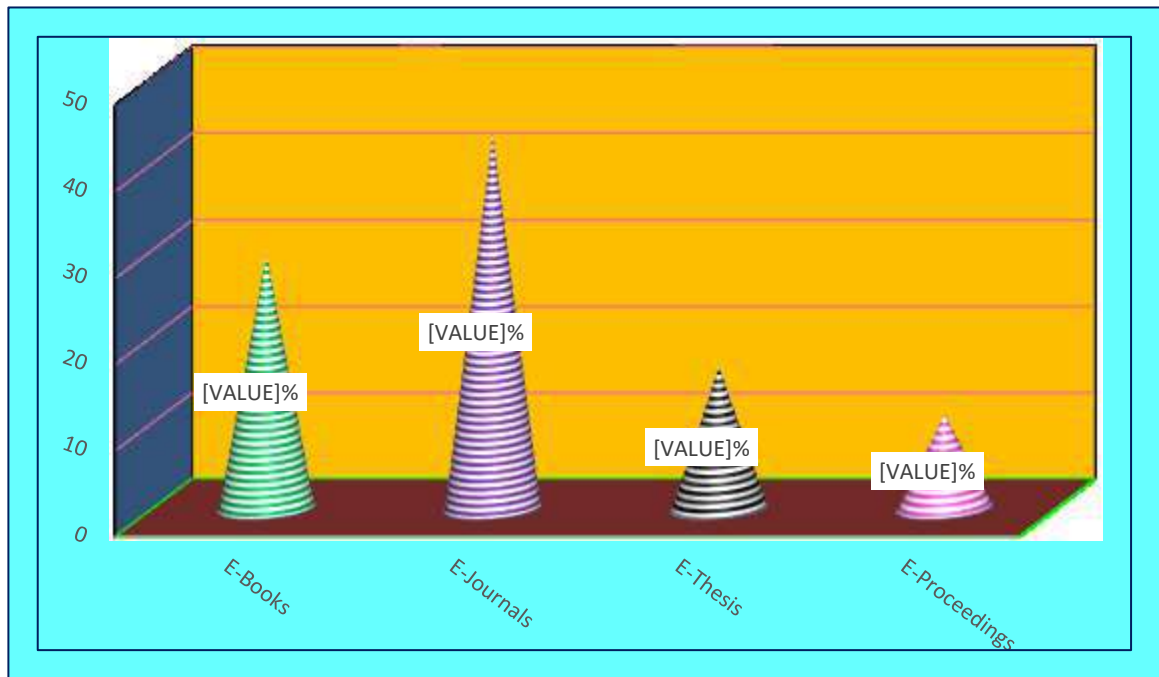
Mainly to review the past studies conducted on OPAC and WEBOPAC, nearly 31 studies has been reviewed and most of the studies are focusing on Subject search, Keyword search, Electronic database search, Author search, Title search, General search. Some studies are based on user centric and the investigator mainly focusing on university library users searching on OPAC and WEBOPAC.

Objective of the Study

The main objective of the study is to find out the OPAC have access to the subscribed links in university libraries and types of search available in OPAC, the study covered 14 university libraries in Tamilnadu and data were collected and analyzed.

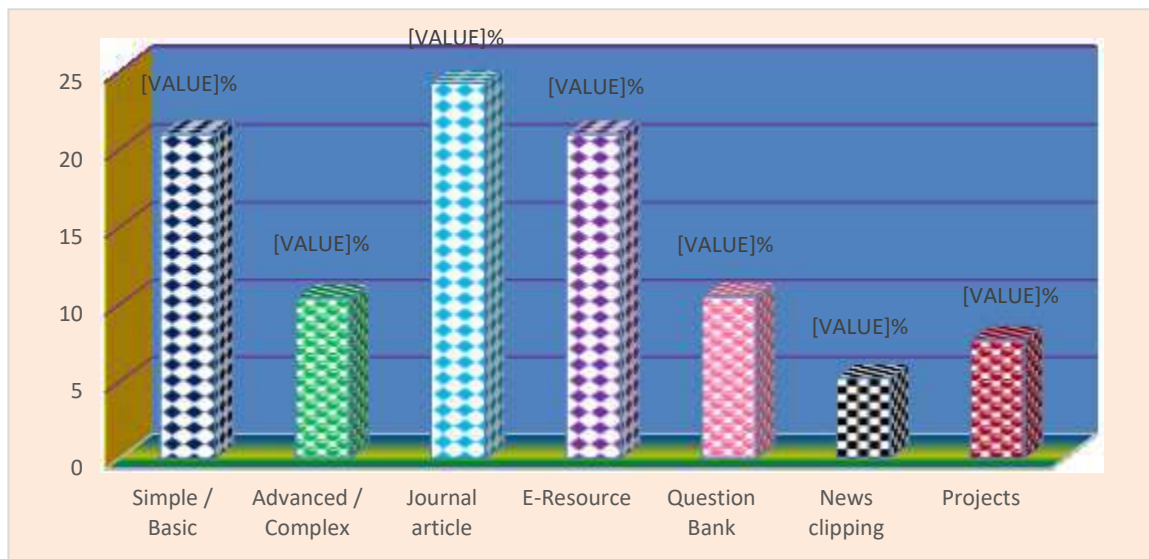
Analysis of the study

OPAC have access to the Subscribed Links



The above graph describes about the ‘Do your OPAC have access to the subscribed Links’ and ‘E-Journals’ are 432 response and the percentage is 43.28% and it is the highest among all the other categories. The ‘E-books’ category is 293 and the percentage is 29.35% and second highest among all the categories. The ‘E-thesis’ and ‘E-Proceedings’ are 164 and 109 response and the percentage is 16.43% and 10.92% and it is the lowest among all the other categories. From this it is clear that the ‘Do your OPAC have access to the subscribed links are E-Journals and E-Books.

Types of Searches available



The graph describes about the ‘Types of searches available’ and ‘Journal articles’ are 242 response and the percentage are 24.24% and it is the highest among all the other category. The simple/Basic search available are 209 response and the percentage is 20.94% and it is the second highest among all the other categories. The E-resources and question Bank are 209 and 105 response and the percentage are 20.94% and 10.52%. The ‘Advanced /Complex’ and ‘Project’ are 104 and 77 and the percentage is 10.42% and 7.71%. The ‘News clippings’ are 52 response and the percentage are 5.21% and it is the lowest among all categories. From this it is clear that the types of searches available are Journals articles and simple /Basic search and E-resources.

Conclusion:

The card catalogue has taken the position of the library's OPAC system and it is now an essential part of a key service provided to patrons. The research on OPAC mentioned above have demonstrated the value of OPAC in libraries. In terms of information retrieval, the Online Public Access Catalogue is a crucial tool for information facilities

and libraries. It is now thought of as a gateway to library resources that every patron should be conscious of and utilize to find and meet their informational requirements. Although the OPAC has more access points, a greater range of search capabilities, and a more complicated search procedure than the card catalogue, the search strategy has essentially remained the same in both. OPAC Utilization by faculty members and students. Because most users are accustomed to using OPAC for information needs and web searching, they do not adequately utilize the many important services that most offer along with the OPAC facility. Despite this, the survey found that library patrons use OPAC at extremely low rates. To address this, the current OPAC system needs to be upgraded in order to provide users with better services. Instructions for use and the importance of using OPAC must be urgently posted on a board near the OPAC area.

References:

1. Adegun, I. A., Akinola, J. O., Oyewumi, O. O., & Olusegun, A. S. (2021). Online Public Access Catalogue (OPAC) Among Library Users: A Case Study of Olusegun Oke Library, Lautech, Ogbomoso, Oyo State, Nigeria. *International Journal of Library and Information Science Studies*, 7(5), 11-18.
2. Ahmad, H. (2014). Library Software Awareness: A Survey of OPAC Vs Card Catalogue in IIT Delhi, IIT Kanpur, and Kashmir University. *DESIDOC Journal of Library & Information Technology*, 34(4).
3. Alam Ansari, M., & Amita. (2008). Awareness and use of OPACs in five Delhi libraries. *The Electronic Library*, 26(1), 111–129.
doi:10.1108/02640470810851789
4. Amadi, E., Shehu, N., & Mordi, G. N. (2023). Utilization of Online Public Access Catalogue (Opac) As A Retrieval Tool for Information Resources In Some Selected University Libraries In South-South Nigeria. *Tin-City Journal of Library, Archival and Information Science*, 12(2).

5. Choudhary, P. K. (2022). Web-OPAC and lending behavior of library users during Covid 19: A study of University in Delhi. *Library Herald*, 60(2), 140-152.
6. Dinet, J., Favart, M., & Passerault, J. M. (2004). Searching for information in an online public access catalogue (OPAC): the impacts of information search expertise on the use of Boolean operators. *Journal of Computer Assisted Learning*, 20(5), 338–346. doi: 10.1111/j.1365-2729.2004.00093.x
7. Fati, O. I., & Adetimirin, A. (2015). OPAC awareness as a factor affecting OPAC use by Undergraduates in two Nigerian libraries. *Inter. J. Acad. Lib. Info. Sci.*, 3(3), 72-80.
8. Gautam Kumar Sarma (2016). OPAC Module in Open Source Library Management Software: A Comparative Study. *DESIDOC Journal of Library & Information Technology*, 36(1), 56-61. DOI: 10.14429/djlit.36.1.9223.
9. Gohain, A. B., & Mishra, D. (2023). Usage Of Online Public Access Catalogue (Opac). As A Resource Discovery Tool: A Study In Lnb Library, Dibrugarh University. *EPRA International Journal of Research and Development (IJRD)*, 8(8), 123-128.
10. Gohain, A., & Saikia, M. (2013). Use and users satisfaction on online public access catalogue (OPAC) services among B. Tech. students of school of engineering in Tezpur University: a survey. *Library Philosophy and Practice (e-journal)*, 990, 1-9.
11. Guha, T. K., & Saraf, V. (2005). OPAC usability: assessment through verbal protocol. *The Electronic Library*, 23(4), 463-473. doi.org/10.1108/02640470510611526
12. Kannaujia, S. K., & Patel, M. (2023). Library Automation: Benefits and Best Practices among users of Central Library of Banaras Hindu University. *International Journal of Research and Analytical Reviews (IJRAR)*, 10(3), 747-757.
13. Kumar, R., & Singh, J. (2019). Usability of OPAC in the university libraries of Haryana (India). *Library Philosophy and Practice (ejournal)*.

14. Kumar, S. (2011). Effect of web searching on the OPAC: a comparison of selected university libraries. *Library Hi Tech News*, 28(6), 14–21.
doi:10.1108/07419051111173883
15. Kumar, S., & Vohra, R. (2013). User perception and use of OPAC: a comparison of three universities in the Punjab region of India. *The Electronic Library*, 31(1), 36–54. doi:10.1108/02640471311299128
16. Lau, E. P., & Goh, D. H. L. (2006). In search of query patterns: A case study of a university OPAC. *Information Processing & Management*, 42(5), 1316–1329.
doi:10.1016/j.ipm.2006.02.003
17. Madhusudhan, M., & Aggarwal, S. (2011). Web-based online public access catalogues of IIT libraries in India: an evaluative study. *Program*, 45(4), 415–438. doi:10.1108/00330331111182102
18. Mugheri, S., Khan, M. Y., & Asif, M. (2022). Web OPAC Services and Users' Expectations with Web OPACs of Public and Private Sector University Libraries in Pakistan. *Library Philosophy and Practice (e-journal)*.
19. Mulla, K. R., & Chandrashekar, M. (2009). A study on the effective use of online public access catalogue at the libraries of engineering colleges in Karnataka (India). *International journal of library and information science*, 1(3), 29-42.
20. Papadakis, I., Stefanidakis, M., & Tzali, A. (2008). Visualizing OPAC subject headings. *Library Hi Tech*, 26(1), 19-23. doi:10.1108/07378830810857762
21. Rajasekaran, S., Ganesamoorthy, M., Selvakamal, P., Mohan, M., & Malini, S. H. (2023). Services Provided by Academic Libraries in the Modern Era. *Journal of Information Technology and Sciences*, 9(1), 1-5.
22. Ramesh Babu, B., & O'Brien, A. (2000). Web OPAC interfaces: an overview. *The Electronic Library*, 18(5), 316-330. doi:10.1108/02640470010354572
23. Ramesh Babu, B., & Tamizhchelvan, M. (2003). An investigation into the features of OPACs in Tamil Nadu (India). *Library review*, 52(6), 257-267.
doi:10.1108/00242530310482033

24. Sankari, R. L., Chinnasamy, K., & Balasubramaniam, P. (2013). A study on the use of online public access catalogue (OPAC) by students and faculty members of Unnamalai institute of Technology in Kovilpatti (Tamil Nadu). *International Journal of Library and Information Studies*, 3(1), 17-26.
25. Surwade, Y., Kapadi, R. V., & Naikar, S. (2020, July). Access of Online Public Access Catalogue (OPAC) Services by the PG Students of JSSP College, Goveli: A Study. In *International Conference on Transforming Libraries: NEP*, 527-537.
26. Swaminathan, K. S. M. (2017). Use and awareness of online public access catalogue (OPAC) by Students and faculty members of Anna University Regional Campus, Coimbatore, Tamil Nadu—A Case Study. *International Journal of Scientific Research and Management (IJSRM)*, 5(5), 5345-5349.
27. Swarnika Dey & Mukut Sarmah (2016). An Evaluative Study on the Web OPAC Available on the Websites of Library of the Central Universities of India. *Electronic Resource Management in 21st Century: Issues and Challenges*.
28. Thanuskodi, S. (2012). Use of online public access catalogue at Annamalai University Library. *International Journal of Information Science*, 2(6), 70-74.
29. Uplaonkar, S. S. (2020). Usage and awareness of OPAC by faculty of University Library, University of Agricultural Sciences, Dharwad. *Library Progress (International)*, 40(1), 87-91. doi: 10.5958/2320-317X.2020.00010.0.
30. Vijayakumar, S., & Manasa, S. (2018). Attitude of OPAC users at Regional Institute of Education, Mysuru: A survey. *Journal of Library & Information Science*, 8(2), 71-98.
31. Villen-Rueda, L., Senso, J. A., & de Moya-Anegón, F. (2007). The Use of OPAC in a Large Academic Library: A Transactional Log Analysis Study of Subject Searching. *The Journal of Academic Librarianship*, 33(3), 327–337.
