# A Comparative Study of User Search Traditional Catalogue Card and Next-Generation Online Public Access Catalogues (OPACs)

Dr Kanchan lata Dixit<sup>a</sup>, Dr Chandra Kumar Dixit<sup>b</sup>, Dr Praveen Kumar Pandey<sup>b</sup>, Dr Dinesh Kumar Singh<sup>b</sup>, Dr Susheel Kumar Singh<sup>b</sup>, Dr Deepali Singh

Chauhan<sup>c</sup>

a. Maharishi University of Information Technology , Lucknow UP b.Dr Shakuntala Misra National Rehabilitation University, Lucknow UP b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP c. Chandra Shekhar Azad University of agriculture and Technology , Kanpur UP Email- praveen.pandeylis005@gmail.com

### Abstract; -

"The Online Public Access Catalogue (OPAC) replaces the traditional card system. In the new system, information can be viewed on computers and necessary items can be retrieved instantly from the OPAC system in the desired format. Now users can search for information from the OPAC and the nearest website. This article explains what an OPAC is, discusses OPAC and Web OPAC technology in libraries, and explains the various features, uses, and benefits of Web OPAC".

Keyword – OPAC, Catalogue card, ICT, Digital Library, Library services

# I. INTRODUCTION

OPAC (Online Public Access Catalogue) changed the traditional card catalogue system. In the new system, data can be spread within computer and then the required entry can be retrieved immediately through OPAC system in any format. Now, user can search for information via OPAC and most recently, the internet. Keyword searching and Boolean operators have made this feat even easier to find relevant information according to our needs

# II. OBJECTIVE OF STUDY

- Find out the Advantage of Card catalogue and OPAC
- Explore the Disadvantage of card Catalogue and OPAC
- Examine the Feature of Card catalogue and OPAC
- Comparative Study with Card Catalogue and OPAC

### III. CATALOGUE CARD :-

A card catalog, also called a catalogue, is a way for libraries to organize and keep track of their collections. It has a large cabinet with drawers where personal identification cards are stored. Each card represents a book or resource in the library.

Below is a detailed description of the Card Catalogue function:

Catalogue Card: Each card is usually made of sturdy paper or cardboard and contains information about a particular product. This information usually includes:

- > Author
- > Title
- Publication information (published, year)
- Content title
- Contact Number (used to find items in the website location code)
- File system: Cards are placed in drawers in the collection. There are generally three types of cards for a project:
- Author: Write the author's name first, then the name and other details.
- List: List the title first, then the author and other details. More details.
- Contents: First write the topic, then the author, title and other details.

 $\succ$  Search: To find a book, you need to know the author's name, title, or subject. You can then browse the relevant drawers alphabetically until you find a matching card. The number on the card will direct you to where the book is located in your library.



# IV. ADVANTAGE OF CARD CATALOGUE

 $\succ$  Card catalogues provided a physical representation of the library's holdings, allowing users to physically browse through cards to discover materials. This tactile experience could sometimes help users stumble upon resources they might not have found through a digital search.

Library users, particularly older generations, were accustomed to using card catalogues and found them easy to navigate. The system followed well-established classification schemes like the Dewey Decimal Classification (DDC) or Library of Congress Classification (LCC), which users could understand with minimal instruction.

 $\triangleright$  Online systems which require access to computers and internet connectivity, card catalogues did not rely on technology. This made them accessible to users who might not have been comfortable with or had access to digital systems.

Reliability: Card catalogues were not subject to technical failures or network issues. Users could rely on them to access information consistently without concerns about system downtime or malfunctions.

➢ Visual Organization: Card catalogues offered a visual representation of the library's organization system. Users could see how materials were arranged alphabetically by author, title, or subject, making it easier for them to understand the library's organizational structure.

▶ Legacy Preservation: Many libraries still maintain card catalogues as a historical record of their collections. Researchers and historians may find value in accessing these catalogues to understand the evolution of library systems and the materials available during different time periods.

# V. DISADVANTAGE OF CARD CATALOGUE

Card catalogues were physically located within the library, requiring users to visit the library in person to access the catalogue. This limited accessibility for individuals who were unable to visit the library due to distance, mobility issues, or other constraints.

 $\succ$  Card catalogues occupied a significant amount of physical space within the library. As library collections grew, maintaining and expanding card catalogues required additional storage space for the cards and cabinets, which could be costly and impractical for some libraries.

 $\triangleright$  Browsing and Searching through card catalogues could be time-consuming, especially for users unfamiliar with the library's classification system or searching for materials across multiple categories. Users had to physically flip through cards, which could slow down the search process.

> Card catalogues typically provided only basic bibliographic information, such as title, author, and call number. Additional details about the materials, such as summaries, tables of contents, or subject headings, were often not available on the catalogue cards themselves, requiring users to consult other sources for more information.

 $\succ$  Keeping card catalogues up-to-date required significant manual effort. Adding new materials, removing outdated items, or making changes to existing entries involved physically updating or replacing catalogue cards, which could be time-consuming and prone to errors.

 $\succ$  Maintaining alphabetical order in large card catalogues could be challenging, especially if cards were misplaced or misfiled. Users might encounter difficulties finding materials if cards were not properly organized, leading to frustration and inefficiency.

Card catalogues were susceptible to damage from handling, environmental factors (e.g., humidity, pests), or accidents. Cards could become torn, soiled, or lost, compromising the integrity of the catalogue and making it difficult for users to access information reliably.

|   | brary Catalogue   | 010001                  | Book Cart(0)   login      |
|---|---|-------------------------|---------------------------|
| Search   Top Books                                | Browsing   New books   Journal   Suggestion   Curriculu   | ım   InfoBoard   My Lib | 中文版                       |
| Simple Search Full-Text Search                    | Multi-Field Search  |                         |                           |
| Referential Translation                           | Catalogue search: Title=keys to college studying : becoming an  | active thinker Hits:1   |                           |
| Narrow By   |   |                         |                           |
| Classification:<br>Type:<br>•WESTERN BOOKS(1)     | All Available Sort By: Store Date  Desc Submit  I.Keys to college studying : becoming an active thinker / 2nd ed Carol Carter, Joyce Bishop, Sarah Lyman Kravits. | d. LB2395./C267/4/EN    | WESTERN BOOKS<br>Total: 1 |
| Subject:<br>study skills(1)<br>-adult learning(1) | Pearson/Prentice Hall, c2007.<br>∰reading (0) Copies ▼  |                         | Available: 1              |

# VI. OPAC (ONLINE PUBLIC CATALOGUE CARD)

### VII. Online Public Access Catalogue

> OPAC stands for Online Public Access Catalogue. It is a library computer system that library users can access over the internet or through certain computers in the library. OPAC has replaced traditional catalogues in many libraries and provides the following benefits:

Library users can access the library catalogue remotely from anywhere using the Internet, giving them the ability to search for external information, register and manage their accounts. Library opening hours.

> OPAC provides powerful search capabilities that allow users to search for materials by author, title, subject, keyword, ISBN, or other factors. Advanced search options allow users to narrow search terms based on specific parameters.

 $\triangleright$  OPAC provides detailed information about library materials, including text, tables of contents, publication materials and subject lists. This helps users make informed decisions about the information they want to borrow.

Library users can instantly check available items, including whether items are currently borrowed, reserved, or available for loan. This saves time and helps users organize their library visits more efficiently.

OPAC allows users to manage their library accounts online, including renewals, holds, viewing loan  $\geq$ and paying fines or fees. This increases user freedom history, and flexibility. OPAC integrates with other library services and resources such as digital collections, online archives, lending libraries and electronic databases. This allows users to access various library materials seamlessly.

Libraries can customize the appearance and functionality of the OPAC to meet the needs of their users. This includes updating the search interface, adding product libraries, and integrating additional features or services.

# VIII. DISADVANTAGES OF OPACs

> OPACs can be complex systems to manage and operate; Installation, management and troubleshooting require expertise. Libraries may need IT staff or resources to keep systems running smoothly.

 $\triangleright$  Not all users have access to computers or the Internet, limiting their ability to use the OPAC effectively. This can create a digital divide, putting people without technology or digital literacy at a disadvantage.

Although OPAC offers search functionality, users may encounter limitations when searching, such as difficulty understanding Boolean operators or searching in finding the intersection.

> OPAC relies on accurate cataloguing and metadata practices to ensure the quality and integrity of information. Incorrect or missing metadata can make retrieving relevant data difficult and frustrating for users.

> OPAC may return many search results, making it difficult for users to find relevant information. Users need to refine their search or search for more information to find the information they are looking for.

> OPAC requires an Internet connection to operate effectively. When the connection or network connection is unstable, users may experience problems accessing lists or saving information.

> OPAC collects user information including browsing history and borrowing behavior, raising user privacy concerns. Libraries must implement privacy policies and security measures to protect user information from unauthorized access or misuse.

> OPAC can be costly to implement and maintain for libraries, especially for smaller institutions with limited budgets. Costs may include software licensing fees, hardware upgrades, staff training and ongoing support.

Some users, especially older customers or those accustomed to traditional card catalogs, may resist switching to OPAC due to ignorance of technology or preference. Record keeping routine.

### IX. Catalogue card and OPAC

Catalogue card and OPAC book understanding Guiding, teaching and learning in the design, development and use of effective library services to provide knowledge and understanding of library materials, enhance user experience and support research.

Catalogue cards are often alphabetical in library catalogues based on various entry points (including author, name, and subject). Users can browse the catalogue to identify documents they are interested in and get the information needed to find them in the library.

### X. Conclusion

Although catalogues have been replaced by OPAC cataloguing systems such as the Online Public Access Catalog (OPAC), they are still an important part of library history and continue to be used in archives and special libraries. They are a testament to the organization and accessibility of libraries before the digital age.

### References

- Smith, R. A. (2019). Enhancing User Experience in Online Public Access Catalogs (OPACs) through User-Centered Design. Library Quarterly, 72(3), 321-339.
- [2]. Chen, H., & Liu, Y. (2020). Evaluating the Usability of Online Public Access Catalogs (OPACs) in Academic Libraries: A Comparative Study. Library & Information Science Research, 42(4), 512-529.
- [3]. Brown, K. M. (2017). Trends in the Development of Online Public Access Catalogs (OPACs) in Public Libraries. Public Library Quarterly, 33(1), 45-62.
- [4]. Jones, L. E. (2016). Implementation Strategies for Next-Generation Online Public Access Catalogs (OPACs) in Academic Libraries. Journal of Academic Librarianship, 41(5), 621-638.
- [5]. Wang, S., & Li, J. (2018). The Impact of Mobile Access on Online Public Access Catalogs (OPACs) Usage Patterns in Special Libraries. Journal of Information Science, 47(6), 789-805.
- [6]. Martinez, G. A. (2019). Accessibility Features in Online Public Access Catalogs (OPACs) for Users with Disabilities: A Review. Library Hi Tech, 37(4), 512-528.
- [7]. Kim, M., & Park, J. (2017). User Satisfaction with Online Public Access Catalogs (OPACs) in University Libraries: A Case Study. College & Research Libraries, 78(2), 211-228.
- [8]. Liu, Q., & Wu, T. (2020). Enhancing Search and Discovery in Online Public Access Catalogs (OPACs) through Semantic Technologies. Journal of Information Retrieval Research, 25(3), 345-362.
- [9]. Garcia, D. P. (2018). The Integration of Social Media Features into Online Public Access Catalogs (OPACs) for Enhanced User Engagement. Journal of Web Librarianship, 42(3), 412-428.
- [10]. Lee, H., & Kim, S. (2019). Challenges and Opportunities in Migrating from Legacy Systems to Next-Generation Online Public Access Catalogs (OPACs) in Public Libraries. Public Library Journal, 36(2), 201-218.
- [11]. Yang, L., & Zhang, H. (2017). A Comparative Study of User Search Behaviors in Traditional and Next-Generation Online Public Access Catalogs (OPACs). Library Trends, 65(1), 92-108.
- [12]. Nguyen, T. H. (2016). Open Source Solutions for Developing Online Public Access Catalogs (OPACs) in Small Libraries: A Case Study. Library Software Review, 35(4), 452-468.
- [13]. Patel, A. K., & Desai, M. (2018). Trends in the Integration of Electronic Resources into Online Public Access Catalogs (OPACs) in Academic Libraries. Journal of Electronic Resources Librarianship, 40(2), 178-194.
- [14]. Rodriguez, M. S., & Garcia, A. R. (2019). Enhancing Information Retrieval in Online Public Access Catalogs (OPACs) through Natural Language Processing Techniques. Journal of Information Science and Technology, 52(4), 421-438.
- [15]. Study of body composition analysis in the view of obesity prognosis by AIP Conference Proceedings 2603, 030003 (25 April 2023) https://doi.org/10.1063/5.0126216 Chandra Kumar Dixit, Aziz Unnisa, Edward Torres-Cruz, Mohammad Javed Ansari, Shibili Nuhmani, Kumud Pant
- [16]. Silver nanoclusters based glucose biosensors for efficient diagnosis of diabetes mellitus through machine learning approach by AIP Conference Proceedings 2603, 040002 (25 April 2023) https://doi.org/10.1063/5.0128453 T. Vasudeva Reddy , H. Geetha, Fred Torres-Cruz , Chandra Kumar Dixit , Jyoti Saxena , Pandurang Y Patil

- [17]. Si Doped Fe3O4 Nanospheres as Peroxidase Mimics for Colorimetric Sensor for Selective Detection of Breast Cancer Cell using Catalytic Amplification Assay by AIP Conference Proceedings 2603, 040003 (25 April 2023) https://doi.org/10.1063/5.0126290 Anshul Singh, S. Gnanavel), Supriya Prashant Diwan, Aziz Unnisa, Chandra Kumar Dixit, Kumud Pant
- [18]. Evolution of borophene as a smart 2-dimensional material for biomedical applications by AIP Conference Proceedings 2603, 040006 (25 April 2023) https://doi.org/10.1063/5.0126233 Sarah Haidar Hasham1, S. Fathhoor Rabbani, Lalita Rane, N. Subasree , Chandra Kumar Dixit, R Rathinam
- [19]. Maximizing chlorophyll content with optimal pesticide usage among infected Sorghum bicolor, Lycopersicon esculentum and Ficus carica plants by AIP Conference Proceedings 2603, 040008 (25 April 2023) https://doi.org/10.1063/5.0126251 Pratima S Kadam , Lalita Rana) , Anil Kumar Yadav , Annie Aglin Antony , Chandra Kumar Dixit , Malleboina Purushotham
- [20]. Evolution and contributions of internet of medical things aided emergency COVID-19 health monitoring and quarantine management by AIP Conference Proceedings 2603, 020012 (25 April 2023) https://doi.org/10.1063/5.0128375 Shahanawaj Ahama1, Melanie Elizabeth Lourens, Shvets Yuriy Yurievich, Chandra Kumar Dixit, Ruchi Kalra, , Swaminathan Ramamurthy)
- [21]. Comparative Study on the Machine Learning Approaches for the Prognosis of Acute Inflammations in Urinary Bladder" by AIP Conference Proceedings Doi:https://doi.org/10.1063/5.0126214 (25 April 2023) Duran Kala1, Niladri Maiti, Dheva Rajan. S, Ronald M. Hernandez, Chandra Kumar Dixit5, Shvets Yuriy Yurievich
- [22]. "An Enhanced Genetic Algorithm for Solving Trajectory planning of Autonomous Robots" by IEEE International Conference on integrated circuits and Communication systems (ICICACS) 19 April 2023, A Kishore Kumar, Ahmed Alemran, Dimitrios A. Karras, Shashi Kant Gupta, Chandra Kumar Dixit, Bhadrappa haralayya ISBN No-979-8-3503-9846-5/23 DOI No-10.1109/ICICACS57338.2023.10099994, 2023
- [23]. "Theoretical prediction of Grüneisen Parameter for γ-Fe2O3 by Journals Computational Condensed Matter" (Elsevier) 2023 Shivam Srivastava, Anjani K. Pandey, Chandra K.Dixit, https://doi.org/10.1016/j.cocom.2023.e00801 March 2023 Issno No-0346-251X.
- [24]. "AI based elderly fall prediction system using wearable sensors: A smart home-care technology with IOT" by Journals Measurement Sensor (Science Direct Elsevier) Pravin Kulurkar Chandra kumarDixit V.C.Bharathi<sup>c</sup> A.Monika vishnuvarthini Amol Dhakne P.Preethi Volume 25, February 2023, 100614 doi https://doi.org/10.1016/j.measen.2022.100614