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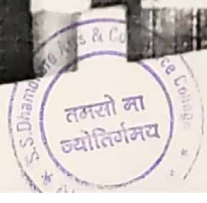
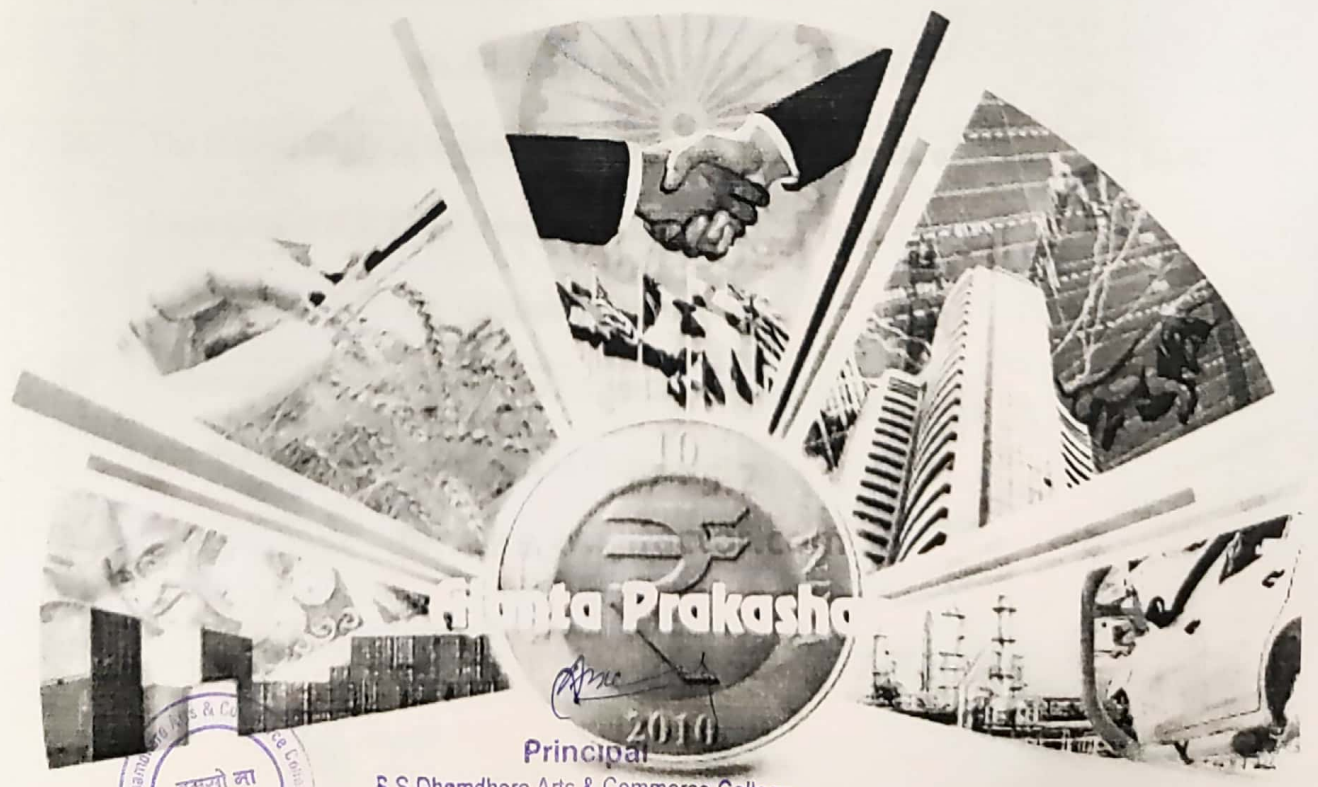
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## Historical Development of Web OPAC

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### Abstract

Library catalogue is very important tool for searching the location of particular material within no time. Due to the global development of information technology and its implementation in libraries gave birth to Online Public Access Catalogue. OPAC has different feature. It is called an extension of card catalogue and OPAC acts as library Website home page like as portal. OPAC also used as promotional tool for library products. Current study intends to describe the history of Web OPAC. This study also describes the history of OPAC at international level and describes different generations of OPAC through ages. The study was theoretical in nature.

### Introduction

An Online Public Access Catalogue (OPAC) has revolutionized traditional accessibility to resources of libraries in general and academic libraries in particular. It is an interface of information retrieval system which assists information searchers to access resources of libraries using several access points. Traditionally, it is concerned with searching for and retrieving bibliographic records of information items instead of full-text of the content of resources. It has made searching and retrieval of bibliographic records of materials easier and faster.

According to ALA Glossary "Information Technology is the application of computers and other technologies for acquisition, organization, storage, retrieval and dissemination of Information."

Vyas (2003) "IT is the modern science of collecting, storing, manipulating, processing and communicating information. IT includes technologies which are used in collecting, processing, storage, retrieved and disseminate of recorded information".

International Encyclopedia of Information Technology and Library Science, defines automation as the "technology concerned with the design and development of progress and system that minimizes the necessity of human intervention in their operation".

A large number of libraries in India have automated their operations and services using this technology to fulfill their users' needs. Public catalogue which is an important service of the

library, is not exceptional to computer technology. Computerized catalogue is termed as Online Public Access Catalogue (OPAC). It acts as an information retrieval system for the user. OPAC has revolutionized access to bibliographic information through search capabilities such as keyword searching, Boolean searching, truncation, proximity searching, and item identity number searching. These were not possible in the traditional catalogue.

OPAC is the Online Public Access Catalogue or, in other words, the library catalogue. It is an online database of all of the resources held in the library. You can search OPAC to locate books in the library. It lists the number of the items, whether they are in the library or out on loan, and their call number

Library Catalogue: ALA Glossary of Library Terms defines catalogue as "a list of books, maps, etc. arranged according to some definite plan. As distinguished from the bibliography, it is a list which records, describes and indexes the resources of a collection, a library or group of libraries.

According to C.A. Cutter, a catalogue is "a list of books which is arranged on some definite plan. As distinguished from a bibliography, it is a list of books in some library collections."

According to Margaret S. Taylor, "bibliography is a list of books or manuscripts on a particular subject. A catalogue is also a list but its scope is limited to a particular collection".

A library catalogue is a record of entries describing the documents (books, journals, microfilms, microfiches, etc.) along with their location details which a library holds. In a library, the documents are arranged in a particular sequence according to their location details. But the document may have one or more characteristics such as author, title, series, subjects, etc., the approach of the user may be through any one of the above stated characteristics. To satisfy any of approaches, the catalogue is needed in a library, which explains essential facts about the documents in the form of entries or unit records. Catalogue is prepared on the basis of a set of rules prescribed by a catalogue code.

Thus, a library catalogue is an index or a list of library resources in any medium in a library or group of libraries, arranged in recognized order and containing bibliographical information (the name of author, title, edition, collaborator, call number, details of imprints and collation etc.) for locating the indexed resources of library easily.

Function of the Library Catalogue: One of the essential functions of the library is to provide the document to a user which requires and it is the catalogue, in whatever form it is



available, catalogue performs this function. It provides sufficient information regarding the documents to locate and identify them for the purpose of study, teaching and research.

According Shera and Egan state that Accurate and speedy determination of whether or not an item known by author or title is in the collection and if so where it may be found.

What materials the library contains upon a given subject and where they may be found?

**Forms of Catalogue:** The form of library catalogue has varied widely since the ancient days. Library catalogues appear in various forms. The predominant forms are book catalogue, card catalogue, microform catalogue and online catalogue. Besides these commonly recognized forms of the catalogue, there are also other forms such as guard catalogue, sheaf catalogue and Kardex card index.

**Historical development of catalogue:** In ancient period, the libraries devoted their functions to the acquisition and preservation of reading materials. Libraries used some systems of bibliographical organization or control so that the material available in the libraries could be located. Such systems did not have the universal rules. Many attempts were made to obtain some standardization of bibliographic entries among library catalogues. Primitive methods of bibliographic control have existed since the beginning of the first library. The Archaeological Excavations Assurbanipal (1668-626 B.C) revealed that bibliographic information was recorded on clay tablets that served as simple location devices. The Alexandria Library supposedly had an extensive catalogue compiled by Callimachus in the forms of Pinakes in 250 B.C.

During the 12 century and 13 century, the catalogue arrangement represented the same casual pattern. In the twelfth century, the typical catalogue however remained an inventory list. The earliest information regarding the libraries of the universities came to light in the catalogue of the Sorbonne at the University of Paris in 1289. The fourteenth century catalogues included the author index appended to an inventory list which could conceivably be as a true catalogue. In 1327, the catalogue of the Exeter Cathedral library was an author catalogue with only one subject heading. In the fifteenth century, the concept of the finding list was slowly taking place through the addition of author indexes. The sixteenth century was influenced by great bibliographers like Gesner, Treflerus. and Maunsell. Their efforts paved the way towards a systematic approach rather than the individualistic method of the past. Seventeenth Century marked further progress in catalogue practice and brought the Bodleian catalogue. It was the first printed catalogue in the classified form compiled by Thomas James in 1605. By the eighteenth century, the catalogues were supposed the finding lists rather than being used as inventories only. The entry of the



surname was usual and the use of imprint in the entry and 'bound with' with notes, references and analytical entries was a very common feature of the catalogue. In nineteenth century, many great codes were emerged. The catalogues were continued to be considered the finding list. At the beginning of nineteenth century, the dictionary catalogue was little known. But some sort of subject entries were often visible in author catalogue due to the tendency of making 'catch word' entries for anonymous works. In later half of the nineteenth century, various cataloguing codes were designed. By the end of this century, the pattern of catalogue construction was well defined with subject headings, main entry, classification, unit entry, added entries and adequate bibliographical description, all well-developed elements. Co-operative cataloguing was in its beginning stage.

● Online Public Access Catalogue (OPAC): Harrod's Librarian's Glossary and reference book defines "An OPAC is the catalogue of a library or information centre made available to users online and generally providing a variety of additional facilities such as loan information, online reservation, and library news. With the demise of the card catalogue, the need for stressing the 'Online Public Access' part has disappeared and they are now frequently just 'catalogue'.

Gorman has characterized an online catalogue as an 'integrationist' and defined it as "a bibliographic control system that shows access by means of a number of access points (conventional and unconventional; single and in combination) to bibliographic data stored in machine-readable form. The data retrieved is displayed on a terminal screen or printed out on demand. Terminals are housed in the library or elsewhere. The user retrieves information at items held by the library and by other libraries."

Online Dictionary for Library and Information Science defines, "OPAC as an acronym for Online Public Access catalog, a database composed of bibliographic records describing the books and other materials owned by a library or library system, accessible via public terminals or workstations usually concentrated near the reference desk to make it easy for users to request the assistance of a trained reference librarian. Most online catalogues are searchable by author, title, subject, and keywords and allow users to print, download or export record to an e-mail account.

'According to Wells, it acts as bibliographic database, an electronic version of the card catalogue that it replaced, acting as an index for users in search, for example of a particular book.



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OPAC is one of the forms of catalogue. OPAC is computerized catalogues containing records of the items in a library or information centre, which is used for storage and retrieval of information. OPAC searches provide basic search, advanced search, browsing search, Boolean search, search through access points such as author, title, subject, keyword, call number, etc. It also provides information and facilities for loan status, location, availability and reservation of document. Therefore, it has more search capabilities and facilities than traditional catalogue.

### Historical development of the OPAC

There are two types of Library Web OPACs. First, online public access catalogue converted into web interface. Second, by using Z39.50 protocol which is client-server based communication tool. Qutab and Mahmood (2009) Highlight that library website as interactive tools between users and librarians because library website represents that how and where to access their relevant information. The availability of OPACs developed the need of websites and websites provide a pathway to OPACs. Library websites and OPACs are indispensable for each other.

OPAC has started use in developed countries in late 1970s but become popular in 1980s. During the four decades much development occurred in OPAC, especially in 1990s. System of this age has improved capabilities for searching such as simple search, advance search and user friendly interface. External links to full text books, journals and databases are other capabilities. These facilities for users motivate libraries to introduce such systems in developing countries.

Earlier some libraries in sixties used computers for the production of the catalogues. Eighty column punched cards were used to print the catalogues on the paper. The computer systems of that time were not capable of searching the catalogue online. The concept of MARC (Machine Readable Catalogue) heralded a new era in the libraries. MARC stimulated the development of library automation and information networks. Library of Congress launched MARC-I as an experiment when there was no established bibliographic record in machine-readable form.

OPAC become popular in world during eighties. Biennial Victorian Association of Library automation (VALA) held a conference in 1981, where university of Adelaide introduces OPAC. This step motivated many other libraries. Some library systems OPAC module was implemented by some public libraries during this period. In 1986 a meeting held by Europeans Library Association, in which major theme was OPACs. During mid of eighties, the integrated library management systems was came into existence. These Integrated Systems have many



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modules like acquisition, cataloguing, circulation and serial module etc. The earlier integrated library systems had only one purpose, circulation control. The vendors of these integrated systems began OPAC as a module for these integrated systems during 70s and early 80s.

Searching capabilities in the Windows version of OPACs are greater than those found in earlier OPACs. Pointer capabilities allow the user to select exactly the term he/she is looking for. By using scroll bars and pull-down menus, browsing in different indexes is very simple. Boolean operators can also be used to narrow down or broaden search results. Such strings can be constructed using the mouse alone. A number of OPACs provide the facility to refine the search results by year, language, and type of publication. Most recent additional advanced feature of this OPAC is the hypertext function. Through this function, any word that the user selects or highlights can be used to search all fields and sub-fields in all the records in the database. This dynamic feature helps the search to navigate the database to find more relevant documents

**General features of OPAC :** Not all library management software's have the same features in OPACs. There are certain variations in the features of OPACs of different library software's. However, some general features are given below

**Searching by author, title, call number, ISBN, series:** These are basically string or phrase search options and consequently the end-user has to provide words from any of these access points in the search box of OPACs. The facility of combined search terms using Boolean or other operators may be provided.

**Searching by subject:** Subject search is a very important search option. This is general phrase search. The user has to provide either the complete subject heading or the left part of the phrase or a search expression. The user may use the search terms or keywords from the same subject headings list or thesaurus that was used while the input was prepared for the databases

**Searching by keywords:** Keyword access is a very powerful tool and provides more flexibility to user to search the items for which he/she has not exact information.

**Web-OPAC :** Web-OPAC is an advanced technological form of OPAC. It is a library catalogue on the Web or Internet and is a next generation of OPAC. It utilizes the World Wide Web protocol to deliver a library's catalogue. It is programmed to facilitate the library user to access OPAC remotely. The concept of Web-OPAC is very well established and practiced successfully in developed countries, especially in USA and UK. Majority of their libraries are well equipped with it and offer regular service to their members. Today in India, some libraries are also providing Web based OPAC.



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