

Online Public Access Catalogue: A Journey to Alice for Windows, LibSys, and Virtua

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ABSTRACT

The importance of knowing the various search facilities available on a range of software packages, on a comparative basis, cannot be overemphasised. This study concerns with laying the foundation for such exercise. With the application of information technology in libraries, selection of an appropriate library automation software package has become a challenge for the library administrators. Online Public Access Catalogue (OPAC) is an important module in all library packages. The present study evaluates three important library software packages, namely, Alice for Windows, Libsys, and Virtua in the context of OPAC module.

Keywords: Information technology, library automation, search strategy, library software, OPAC, database search, AMU, Alice, Libsys, Virtua

1. INTRODUCTION

Over the years, the Indian market for library automation software packages has been subject to remarkable changes, particularly with respect to the growing competition among the leading suppliers. As a result of this stiff competition, librarians are facing a dilemma. While on one hand, they are not so well equipped with the technologies on their own, on the other, software companies send their marketing professionals who demonstrate very few features, particularly from the Online Public Access Catalogue (OPAC) module. OPAC module has much more to offer beyond the author, title, and subject searches. It is simply not a replacement of the card catalogue with simple search facilities.

Now when Indian market is witnessing a cut throat competition between the Indian and international players, there is a need to identify and have a closer look at the predominantly used software. This study will give library managers some ideas for comparing

the most widely used module of library automation software either in the country or elsewhere in the world.

2. SCOPE

Today, many library automation software packages are available in Indian market. Besides the availability of indigenously designed and developed software, a number of foreign software packages are also available. Among the indigenously developed library software, Libsys is still on the top with more than one thousand installations. On the other hand, Alice for Windows is the top selling foreign software. Virtua, though, a new entrant in Indian market, is gradually picking up the market. Present study evaluates OPAC module of these three library automation software packages.

3. REVIEW OF RELATED LITERATURE

With the flood of library automation software packages in Indian market, many libraries have selected different packages. Consequently, many comparative

studies have also been conducted about their utilities. However, the literature available on comparative review of various library software is very less. Further compounding the problem is the non-existent of literature on the software predominantly in use in India. The studies of Muskier^{1,2} were limited to parts of the South Africa. Vietzen³ did a comparative study of the software developed in-house in their respective libraries in South Africa. Study by Norden and Lawrence⁴ observed how library users use public terminal of an online catalogue in Ohio State University. Moore⁵ in a study observed use of OPAC along with success-failure rates comparison. The study by Chisenga⁶ provides a good overview related to factors that influenced the choice of software. However, this study was restricted to central and southern part of Africa. Jones⁷, *et al.* collated some of the early studies on how software can be designed to help users, and how computer systems might adapt to users' needs. Recent studies by Konomos and Herrington⁸ described the data collection techniques through OPAC in the university libraries at the Arizona State. Shababat and Mehtab⁹ though studied similar library automation software packages in Indian context, but their study was also restricted to the cataloguing module only. The present work is an attempt to fill the gap prevalent on comparative review of library software.

4. METHODOLOGY

The Department of Library and Information Science, Aligarh Muslim University (AMU), has procured the licensed copies of Alice for Windows and Libsys. These software are being used to impart the hands-on-training to the MLISc students in the department. Also, one of the authors had received hands-on training on Virtua software at VTLS Headquarters located in Blacksburg, USA. The OPAC modules of Alice, Libsys, and Virtua software have been examined and analyzed in the present work, particularly in terms of multiple search strategies, multiple cross references, and tracings, library-defined indices, multimedia access, filtering, sorting, patron-empowerment, Z39.50 compliance, Unicode support, and security features.

5. ALICE FOR WINDOWS

Alice for Windows (AfW) is very popular, integrated library automation software designed and developed by a leading Australian company, Softlink, based in Brisbane. Alice is marketed worldwide through a number of agencies based in America, Australia, New Zealand, Britain, Iceland, Singapore, Malaysia, and India. It has more than 13,000 installations

across the world. In India more than 200 libraries are using Afw. The company has also bagged a very prestigious Microsoft Certified Solution Provider Award in 1999 from the Microsoft Corporation.

Alice for Windows comprises modules required for day-to-day transaction of a library, i.e., management, circulation, inquiry, and reports and utilities. It is important to mention here that OPAC module is known as inquiry in AfW. Apart from these modules, the software has some advanced modules like acquisitions, periodicals, journal indexing, multimedia, web inquiry. The software operates on any IBM compatible PC in any version of Windows. It is also compatible with MAC with at least 32 MB of RAM with 2.1 GB hard disk. The software runs in a single as well as multi-user environment.

6. LIBSYS

Libsys is fully integrated library management software designed to run on a number of platforms. It supports UNIX, Windows NT, and Novell Netware in client-server architecture. It can run on many servers such as Windows NT, SCO Unix, Linux, Unixware, Novell, Sun Solaris, Alpha OSF/1, etc. On the client side, a library may have any version of windows. Besides, the software is also compatible with Java-enabled thin client. Significantly, Libsys does not need any relational database management system (RDBMS) as it uses proprietary database. However, ORACLE as backend or SQL server is the available options of Libsys.

Libsys has the largest installations base in India with more than one thousand libraries using the software. Importantly, many world renowned institutes in India are also the users of Libsys software.

Libsys has six modules: (i) acquisition, (ii) cataloguing, (iii) circulation, (iv) serials control, (v) article indexing, and (vi) OPAC. The software has the support of Unicode, so if a library chooses radio frequency identification technology, SIP-2 interface in the Libsys, would facilitate installing self-check workstation, book drop counters, re-shelving of items, etc.

7. VTLS

Virginia Tech Library System (VTLS) Inc. located in Blacksburg, Virginia, is the offspring of a project launched in 1974 at Virginia Polytechnic Institute and State University's Newman Library, a member of the Association of Research libraries with more

than 1.5 million catalogued volumes. Having studied available library automation alternatives and having realised no system perfectly suitable for the needs of its libraries, Virginia Tech initiated a project to develop an automated library system. This forerunner of VTLS, comprising an OPAC and an automated circulation system, was installed at Virginia-Tech's Newman Library in 1975. By 1985, the software had grown into the integrated library system known as VTLS. In the same year, VTLS Inc. was formed as a subsidiary corporation of Virginia Tech Intellectual Properties (VTIP), which granted VTLS Inc. exclusive worldwide rights to market VTLS products. In 1998, VTLS Inc. introduced Virtua library automation software⁵. VTLS Inc is an ISO 9001 certified company. Significantly, more than 1000 libraries in around 40 countries have chosen Virtua software for automation purpose.

Virtua has many modules, viz., acquisition and fund accounting, cataloguing, circulation, serials control, OPAC, chameleon gateway, statistic and reporting, and system profiling. VTLS also manage collection through radio frequency identification (RFID) technology. Furthermore, company specialises in microfilm scanning and digital library techniques.

8. OPAC FEATURES IN AFW, LIBSYS AND VIRTUA

AfW contains 11 fields for search. These are author, title, subject, keywords, topic, publisher, ISBN, call no., barcode, and accession number. There is a facility for simple as well as complex searches. Users can store *Set*, having their preferred search strategy temporarily in the software for the purpose of saving their time. Inquiry (OPAC) can also be used as an information bulletin. Facility of library map helps user in identifying the location of a particular book. Inquiry module of Alice also supports viewing multimedia files. There is no need to rebuild the index to view any resource in inquiry as automatic indexing is done. Alice also offers the ability to catalogue electronic files including documents and HTML files downloaded from the World Wide Web. These files are viewable through inquiry module. The status of any book can also be checked and if the book is issued, librarian can know the details of the borrower through Inquiry module. Afw offers quick searching to assist school libraries with very young students also interested to view pictures.

In Libsys OPAC services include title, catalogue author cataloguing, subject catalogue, classified catalogue, publisher index, place of publication index, keyword in context/keyword out of context indexes. Boolean searches allows use of logical connections OR,

AND, and NOT. It allows use of truncation, parentheses, and proximity connectors. Libsys also allows user-defined searchable fields, and stop words. OPAC provides online information on holding of current journals including recent issues received. There is also facility for online reservations, serial digital interface (SDI), conditional access system (CAS), etc. Moreover, Libsys supports defining multiple databases based on types of documents for searching in OPAC⁶. Other services from OPAC client includes updating subject interest profile for SDI by users themselves, request for acquisition of a document while browsing/ searching various catalogues, and facility to make request online for putting a specific title on reserve, etc. OPAC module of the software also has the multimedia interface.

The Virtua OPAC gives the user fast, easy and comprehensive access to data regardless of how the data is stored. The client/server environment of the Virtua OPAC supports multiple search strategies, multiple cross-references and tracings, library defined indices, multimedia files, filtering, sorting, patron empowerment, multilingual access through Unicode, security. OPAC search features have browse, keyword, expert, and control number. Virtua's browse search option allows users to explore a list of indices chosen by individual library. The browse search produces an alphabetical list of the index chosen by users and allows user to easily navigate through the list. The keyword search options give users the power to incorporate, single or in combination, the use of Boolean operators, and left, right and middle wildcard truncation. Control number searching is designed for staff use. It returns records based upon numbers such as ISSN, ISBN, OCLC, LCCN, Item Id, etc.

To further refine search results users can employ the use of filters in keyword and expert searches. The user can filter on categories such as location, format, nature of contents, language, place of publication, and year of publication. Software also facilitates printing, saving or e-mailing readers. There is provision for reading 'see' and 'see also' references. More importantly Virtua tells the user the term referenced are broader, narrows, earlier, later, acronym etc.

9. DISCUSSION

Table 1 gives the comparative study of various OPAC features available in AfW, Libsys, and Virtua.

Multiple search strategy provides facility to conduct searches on specific bibliographic fields. This search can be limited to any particular document type. Moreover, the search results can be displayed on

Table 1. Selected OPAC features in AfW, Libsys, and Virtua

Features	AfW	Libsys	Virtua
Multiple search strategy	Yes	Yes	Yes
Multiple cross-references and tracings	Yes	Yes	Yes
Library-defined indices	No	No	Yes
Multimedia access	Yes	Yes	Yes
Filtering	No	Yes	Yes
Sorting	No	No	Yes
Patron empowerment	Yes	Yes	Yes
Z39.50 Compliant	Yes	Yes	Yes
Multi-lingual access through Unicode	No	Yes	Yes
Security	Yes	Yes	Yes
Full-text retrievals	Yes	Yes	Yes

the screen or printed. Additionally, these may be saved on any external backup medium.

Multiple cross-references and tracings allow viewing 'See' and 'See Also' references and even informing users whether cross-referenced terms are broader, narrower, earlier, later, acronym or musical compositions.

Multimedia access provides access to images, sound and video clips as well as any other multimedia object.

Filtering allows users to further refine their searches. A user can filter on location, format, language, publication year, etc.

Patron empowerment helps users to place their requests, view the status of their requests, and view their own record and activity as well as to initiate document delivery requests.

Sorting sorts the results in ascending or descending order by author, title, call no., and publication date with a sub sort of author or title.

Z39.50 compliant enables users to search databases such as SilverPlatter, DIOLG, etc. Users may access these databases and compare result sets from various databases.

Multi-lingual access through Unicode allows storage, display and input in native script of dozens of languages including Urdu, Persian, and Arabic.

Security allows and denies access to bonafide members and unauthorised users, respectively. Each user will be having a user profile according to his/her privileges.

Full-text retrievals allow browsing of images of full text or specific portion of a document in multi-windows interface.

Of late, libraries, in particular academic and research, has begun to realise that access to bibliographic information should meet varied approaches of the users. It is worth pointing out that OPAC module of any library automation software should not only be user-friendly but also intuitive. Failing which, user's dependency on the manual card catalogue will not be diminished.

The study of the three software packages reveals that each package has got its own capabilities and limitation. For instance AfW has a remarkable feature of reorganising database just with one click of mouse as per wishes of the user. Its multimedia interface in inquiry module had simply turned many potential customers in India into actual users. Its feature of tracing a document at a particular location in the library through Map facility is considered a marvelous one. Automatic keyword generation through title, author, and notes area is a strong feature of the software. Another peculiar feature is that software offers the ability to catalogue electronic files including documents and HTML files downloaded from the World Wide Web. Notably, majority of the students in the Department of Library Science, AMU, found themselves at ease while receiving hands-on-training. Moreover, a wide range of search strategies available in the inquiry module of AfW have impressed them immensely. OPAC module of Libsys software is also having powerful features. Its KWIC/KWOC indexes are popularly used search strategy. Its proximity connectors, same as provided by DIALOG, reflects the strong technological base of the software. It has also been observed that MLiSc students take special interest in learning all modules of Libsys software including OPAC keeping in view its huge installations base.

Virtua, though new entrant in Indian market is being considered a very powerful and technologically sound library automation software package. Its unicode support is the most attractive feature for the libraries having pre-dominant collection in Urdu, Arabic, and Persian. Significantly, Virtua's unicode implementation can support all languages based on the legacy scripts of Latin, Cyrillic, Greek, Hebrew, Turkish, Japanese, Chinese, Vietnamese, and Korean.

Multilingual support has made the case strong in favour of Virtua for its selection by the great Alexandria library of Egypt. Virtua also opens up a whole new world of access with regards to multimedia, which is linked through the 856 tag of the MARC record. Resultantly, web pages, sound clips and other external files are all accessible at the click of a button. Moreover, Virtua's patron empowerment feature helps giving special privileges to different users. These salient features of OPAC module creates a special interest among the students of the department during practice classes.

10. CONCLUSION

This study has attempted to evaluate the features of OPAC module of three well known library automation software packages, viz., AfW, Libsys, and Virtua. Observations regarding the behaviour of students of the Department of Library and Information Science at AMU related to their practical classes have also been reported. It is now left to individual libraries to select any particular library software package that can cater to their needs and requirements. However, it would be fair to suggest, to analyse thoroughly the features of OPAC module of the chosen software because it is not only related to users but also to the library staff.

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