

A Case Study on Globally used Vufind Open Source Discovery Tool

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Abstract -Vufind is the next generation catalogue which replaces the tradition catalogue OPAC. It is offers single access point where a user can search and retrieve all the resources available in the library. The paper highlights the key features of Vufind software and developments. It also identifies the use of Vufind software worldwide. The study also provides an overview of the most popular theme used by the different organizations. The study found that Ubuntu operating system is most preferably used by 41 numbers of institutes or consortiums to operate the Vufind software. Vufind 1.3 version is mostly used by 32 numbers of users.

Key Words: Vufind, Open Source Software, Discovery tool, Discovery Service for Library

1. Introduction

Library is a place where we found from traditional documents such as books, manuscript, and print journals to electronic documents such as E-books, E-journals, E-database, CD Rom database etc. Previously researcher used to find difficult to trace a particular document but the time has changed, as the library provides a wide range of services using different tools like Discovery tools and techniques like CAS, SDI, Bibliographic Service, TOC service. In the same way the demands of the users has also changed with impact of ICT. Now-a-days every library has Integrate library management software (ILS). In today's world variety software's are available in the markets. Some are freely available in the market and some are commercial software. With respect to the user requirements and increasing demands of the user, many libraries came forward to provide discovery service to the users. Most of them are very costly commercial software such as Ex Libris Primo, SirsiDynix Enterprise, BiblioCommons, ProQuest AquaBrowser and EBSCO Discovery Services by EBSCO and WorldCat Discovery Service by OCLC. Very few are open source discovery tools available and supported by agency like Blacklight, originally developed by the University of Virginia; VuFind, originally developed at Villanova University and extensible Catalog by River Campus Libraries of the University of Rochester and Franklin introduced by University of Pennsylvania Libraries.

2. Vufind

Vufind is the open source discovery tools for library. According to (Parabhoi and Srivastava, 2016) Vufind is a next generation catalogue was developed by Andrew Nagy at Villanova University in the year 2010. The software has been written in PHP PEAR and based on PHP

programming codebases, Apache SOLR indexing MARC records. Vufind is the next generation of catalogue which replaces the traditional OPAC. In a single point the user can search and retrieve all the resources available in the library. It is a strong open source discovery tool and it is gaining popularity among the library. The latest version of Vufind software was 4.0 as on 10th July, 2017 which is posted in the official website. Vufind offers a cross platform environment a user can install Vufind on windows, Ubuntu Linux, Mac, Fedora Linux.

3. Objectives

- To find out which type of institutes or consortiums use Vufind software
- To discover top ILS use by the institutes who have installed Vufind
- To identify top ten country where majority of Vufind software are installed
- To find out top five operating system used for maintaining Vufind software
- To discover top five most frequently used theme for Vufind
- To ascertain which version of Vufind software is mostly used by the registered institutes/consortiums

4. Review of related literature

(Parabhoi and Srivastava 2016) has given the overview of Vufind Open source discovery tool. The authors described various features of Vufind software. (Breeding 2015) gave an overview of VuFind software. The author said that, it was originally developed at Villanova University written PHP programming codebases with Apache SOLR indexing search and retrieval technology. (Denton and Coysh 2011) conducted a usability test of eight undergraduates, two graduates. They have prepared a set of question which contains 14 questions on the customization of VuFind interface and online survey. The finding of the survey was preferred VuFind's interface over the classic catalogue. (Emanuel 2011) define that, the VuFind open-source is next-generation catalog system and it was implemented by the consortium of Academic and Research Libraries in Illinois as an alternative to the WebVoyage OPAC system. (Nagy 2011) VuFind is an open source solution and it was first introduced in the year 2007 by Villanova University. The main motto of product was to provide a leading-edge interface allowing library patrons to discover the library's collection in the same manner that are using the open web every day.

5. Methodology

For this study the data has been collected from website <https://vufind.org/vufind/> official site of Vufind software. The study only considered the list of institutions or consortiums listed in the live sites column. The data was collected on 29th April 3, 2017 and has been analyzed using Ms-excel. There are 170 organizations are found which are using Vufind software.

6. Data Analysis

6.1 Use of Library Management Software

From the below table-1 it is indicated that, the top Library Management Software (LMS) are used by the institute. Majority of institute or consortium use Voyager 21 ILS whereas OCLC/Pica LBS ILS are used by 18 no. of Institutes or consortiums followed by Aleph ILS are used by 14 no. of institutes or consortiums. There are 6 no. of Consortium or Institution

uses Horizon and III Millennium, furthermore found that Inmagic, Koha, Libero and SirsiDynix are used by 8 Institutions or Consortiums. Likewise aDIS and AmicusLibriSuite used 6 number of Institution or Consortium. Some 6 number of Institution or Consortium used Horizon and III Millennium ILS. 27 numbers Institution or Consortium used other ILS and 32 no Institution or Consortium data not specified in the VuFind website.

Table-1: Use of Library Management Software

S. N.	ILS	No.of Consortiums
1.	Voyager	21
2.	OCLC/Pica LBS	18
3.	Aleph	14
4.	Inmagic	8
5.	Koha	8
6.	Libero	8
7.	SirsiDynix	8
8.	aDIS	7
9.	Amicus LibriSuite	7
10.	Horizon	6
11.	III Millennium	6
12.	Other	27
13.	Not Specified	32
	Total	170

6.2 Top 5 Operating System

From the study it is observed that Ubuntu, Centos, Red Hat, debian, SLES are the top five operating system used by the different institutes or consortiums to maintain the VuFind software. It can be informed from figure-1 that, Ubuntu operating system is widely used by 41 numbers of institutes or consortiums. It is followed by CentOS (Community Enterprise Operating System) used by 32 institutes or consortiums and 17 no. of institutes or consortium are using RedHat OS. Debian are used by 15 institutes or consortium and SLES are used by 10 no. of institutes or consortium.

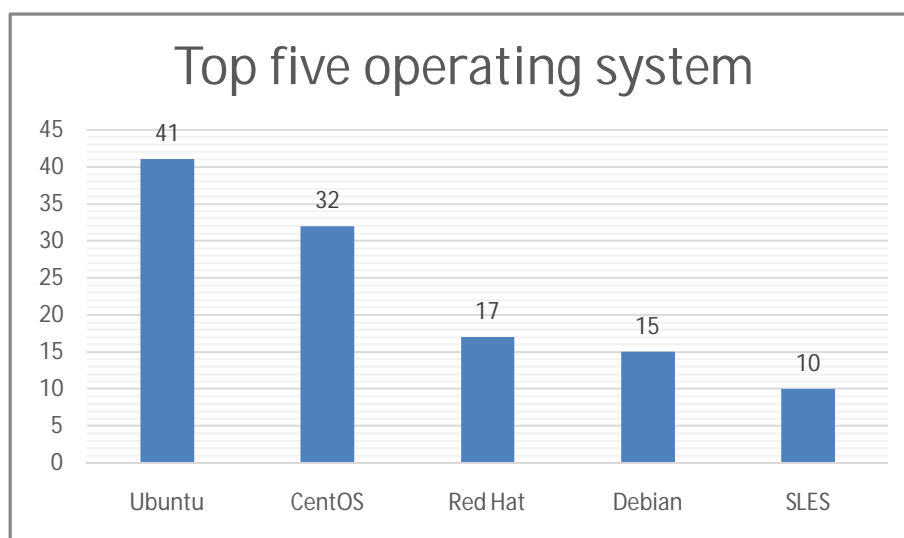


Figure 1: Top 5 Operating System

6.3 Top Vufind version used by Institution/Consortium

The data revealed from the below table-2 that, 1.3 version of the Vufind software is used mostly by 32 no. of institutes or Consortium. Whereas second position has been awarded to 2.3 version and 1.1 version which are having the same statistics with 12 no. of institutes or consortium. Third position was received by 2.X version with 11 no. of institutes. It is further inform that, fourth and fifth position is for version 1.0.1 with 10 no. of institute or consortium and 2.2 with 8 no. of institute or consortium respectively and version 2.5 is used in 5 institute or consortium. Version 3.1.3, 2.4.1, 2.2.1 and 1.4 are used in 4 no. of institute or consortium respectively.

Table-2: Top Vufind version used by Institution/Consortium

S.N.	Version	No of Institution/Consortium
1	1.3	32
2	2.3	12
3	1.1	12
4	2.x	11
5	1.0.1	10
6	2.2	8
7	2.5	5
8	3.1.3	4
9	2.4.1	4
10	2.2.1	4
11	1.4	4

6.4 Top Theme used by Institution/Consortium

Table-3 indicates the top theme used by Institution/Consortium. 19 Institution/Consortium are using Bootstrap3, it is followed by Blueprint used in 4 no. instruction/Consortium whereas Foundation5 theme, CustomBootstrap, Belugax and Bootstrap3 (custom) are used in 2 no. of institution/Consortium. Only one (1) institute or consortium uses Swissbib single (custom) theme. Some 136 institution/Consortium do not share data in Vufind official website.

Table-3: Top Theme used by Institution/Consortium

Sl. No.	Theme	No of Institution/Consortium
1	Bootstrap3	19
2	Blueprint	4
3	Foundation5	2
4	Custom	2
5	Bootstrap	2
6	Belugax	2
7	bootstrap3 (custom)	2
8	Swissbib single (custom)	1
9	Not Specified	136
	Total	170

6.5 Top Five Type of Institute / Organization Installed Vufind Software

Based on collected data from Vufind website and below figure shows that Vufind discovery software are mostly used by 89 Academic Institute where as 16 Academic Consortium it is followed by 10 Public, 4 National Consortium and 2 Union Consortium.

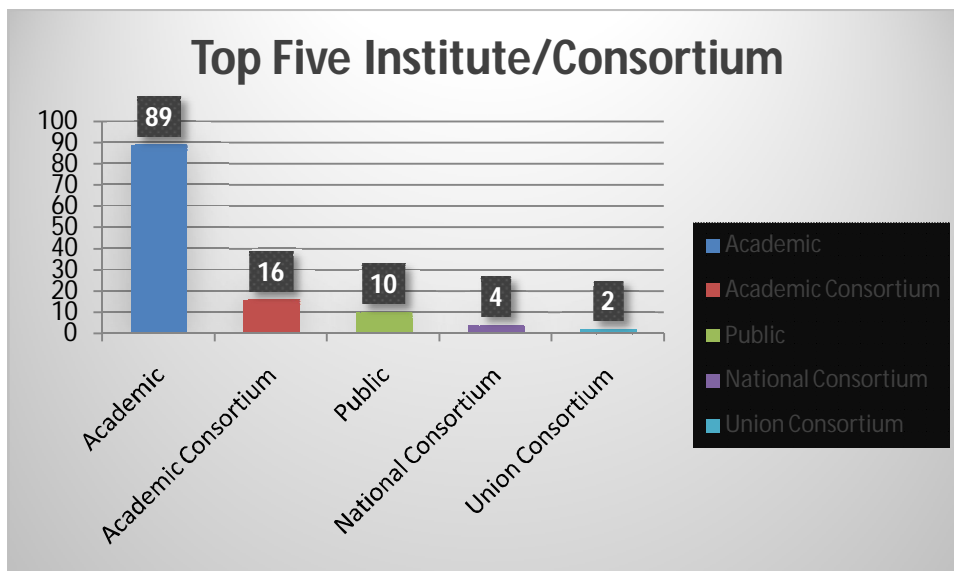


Figure 2: Top Five Type of Institute / Organization Installed Vufind Software

6.6 Top countries Using Vufind software

It is observed from table 4 that Germany got first position where 54 institutes or consortium has installed Vufind software followed by USA where 50 institutes or consortium and Spain 7 and Italy 6. In Czech Republic, Canada, Switzerland 4 number of institute or consortium has installed Vufind software likewise in Australia, Ireland and UK 3 number of institute or consortium are using Vufind software.

Table 4: Top countries Using Vufind software

S.N	Country	No.of Institution/Consortium
1	Germany	54
2	USA	50
3	Spain	7
4	Italy	6
5	Czech Republic	4
6	Canada	4
7	Switzerland	4
8	Australia	3
9	Ireland	3
10	UK	3

7. Findings

- Vufind software is mostly used in Academic institute 89 instead of other category.
- It is found that Bootstrap3 (19) is most popularly used by maximum institutes or consortiums.
- From the analysis it is found that for maintaining Vufind software majority of the institutes or consortiums 41 institutes or consortiums use Ubuntu operating system.
- Germany with 54 got first position whereas maximum number of institutes or consortiums uses Vufind software followed by USA 50 and Spain 7.
- 21 institutions/Consortiums use Voyager ILS where Vufind software is used.

8. Conclusion

In the changing world every library needs a single access tool where the user can search and retrieve his/her required document within a second. In this connection there are different categories of libraries using this software with free of cost. In the same way the user of this software is growing rapidly. The Vufind software provides a single search box to all the resources available in the library. The study concludes that the user of Vufind has been increasing and used by different types of library from academic to public library. Every library wants to provide seamless and quick information retrieval tool with free cost so in this respect the Vufind software is the best one.

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