JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Search Facility Provided on the Library Websites of R&D Institutions of GOI: An Evaluative Study

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Abstract:
The search facility is a core component of modern library websites, serving as the primary interface through which user's access digital and physical information resources. This article examines the functionality, and effectiveness of search facility provided on the library websites of R&D institutions, with a focus on usability, accessibility, and information retrieval performance. Article highlights best practices for enhancing search efficiency and user satisfaction. The findings emphasize the importance of user-centered design and continuous evaluation to ensure that library website search facilities effectively support research community in the institutions.

Key Words: Search Facility; Library Website; Research and Development

Introduction:

In the digital age, library websites have become essential gateways to vast collections of information, research materials, and resources. With the increasing reliance on online platforms for accessing academic and scholarly content, the search functionality on library websites plays a pivotal role in providing users with quick and efficient access to the resources they need. Whether it is searching for books, journal articles, e-books, or multimedia materials, a well-designed search facility enhances user experience by streamlining the process and enabling users to find relevant content with ease (Allen, 2002).

The search tools embedded in library websites are not just about entering keywords and getting a list of results. They have evolved significantly, incorporating advanced features like filtering, faceted navigation, and even natural language processing to improve accuracy and relevancy. As libraries continue to embrace digital transformations, understanding the importance and the potential of search facilities within these platforms is crucial for both library professionals and users alike.

Objectives of the study:

- Assessing the search functionality and capability concerning to internal search and global search
- Assessing the search functionality and capability of access to other catalogues
- Assess the relation between subject of the R&D institution and user experience with the search facility

Research Hypotheses:

Two null hypotheses for the study are

- There is no statistically significant difference between disciplines of the R&D institutions and Search facility provided on the library websites

- There is no statistically significant difference in users' ratings between disciplines of the R&D institutions for search facility provided

Methodology:

The methodology of the study is a composite one, as it is a combination of more than one research method. Survey method was used to collect data from the users of library websites of R&D Institutions in India, under study. Questionnaire has been used as a principle tool for data collection. Questionnaire for evaluation was developed based on the extensive review of existing literature on library websites of academic and research institutions at global level, India and Karnataka state and keeping objectives of the study in view. Likert's five-point scaling method is used to rate the search facility on library websites. Where 1 is poor while 5 is excellent. Additionally cross tabulation is carried to identify, is there any relation between the subjects of the R&D institution and search facility provided. Z test is used as statistical technique is used to identify the relation between subject of the R&D institution and search facility provided. 1.96 significant factor is used for interpretation.

Data analysis and interpretation:

Data collected from the user survey were fed to MS Excel and Statistical Package for Social Science (SPSS) and the output was checked to correct any typographical errors. Statistical analysis of the data was done with the help of SPSS. Further, same tool has been used for presenting frequency distribution tables, graphs and other tables of variables to establish relation between them.

Search Facility:

Effective search facility is crucial for library websites for mining through the large volumes of information made available. Facility can be provided to search within the website, search WWW from the website itself and search catalogues of other similar institutions. Raju & Harinaryana (2008) found from their study on library websites of top 30 Sciences universities around the world that, almost all the library websites under study consisted of one or the other type of global search features on their websites. This facility has helped users to locate the information on the website.

Table-1: Search Facility

Attributes	Poor (%)	Average (%)	Good (%)	V Good (%)	Excellent (%)	Mean
Internal Search	116(27.5)	36(8.5)	92(21.8)	144(34.1)	34(8.1)	2.87
search WWW	145(34.4)	25(5.9)	85(20.1)	134(31.8)	33(7.8)	2.73
Search catalogues of other institutions	209(49.5)	52(12.3)	101(23.9)	52(12.3)	8(1.9)	2.05

Table shows that unlike other categories, majority of the users have not constantly rated search facility as either good or very good. Rather, ratings are fluctuating from scale one to another. Around one-third of the users have rated internal search (34.1%) and global search (31.8%) as very good. However, internal search, global search and other catalogues are consistently rated as good by around one-fifth of the users. Relatively higher percentage of users have rated all of the features as poor i.e. internal search (27.5%), global search (34.4%) and other catalogues (49.5%).

On the whole, the percentage of users who have rated search facility as good and very good is around half (50%), while the percentage is slightly less for the rating of excellent

Cross Tabulation Table-2: Users of Library Websites Vs. Search Facility

Attributes	Disciplines	Poor (%)	Average (%)	Good (%)	V Good (%)	Excellent (%)
Internal Search	Agri	44(31.88)	20(14.49)	32(23.19)	39(28.26)	3(2.17)
	Medical	14(20.90)	5(7.46)	21(31.34)	26(38.81)	1(1.49)
	N&A Sc.	46(26.74)	11(6.40)	27(15.70)	70(40.70)	18(10.47)
	Social Sc.	12(26.67)	0(0.00)	12(26.67)	9(20.00)	12(26.67)
Global Search	Agri	50(36.23)	23(16.67)	26(18.84)	36(26.09)	3(2.17)
	Medical	19(28.36)	1(1.49)	16(23.88)	29(43.28)	2(2.99)
	N&A Sc.	64(37.21)	1(0.58)	31(18.02)	60(34.88)	16(9.30)
	Social Sc.	12(26.67)	0(0.00)	12(26.67)	9(20.00)	12(26.67)
Other catalogues	Agri	82(59.42)	18(13.04)	23(16.67)	15(10.87)	0(0.00)
	Medical	36(53.73)	7(10.45)	10(14.93)	13(19.40)	1(1.49)
	N&A Sc.	61(35.47)	27(15.70)	53(30.81)	24(13.95)	7(4.07)
	Social Sc.	30(66.67)	0(0.00)	15(33.33)	0(0.00)	0(0.00)

Table depicts that more than half of the users from Agriculture (51.45%) and Natural and Applied Sciences (56.4%) have rated internal search as good and very good, while nearly three-fourths of the users from Medical (70.15%) have rated this as good (31.34%) and very good (38.81%). It is also observed from the data that, nearly half of the users from Social Sciences (46.67%) have also rated the same feature as good (26.67%) and very good (20%). The percentage of users who have rated this feature as excellent is comparatively more from Social Sciences (26.67%), whereas a mere 10.47 percent are from Natural and Applied Sciences.

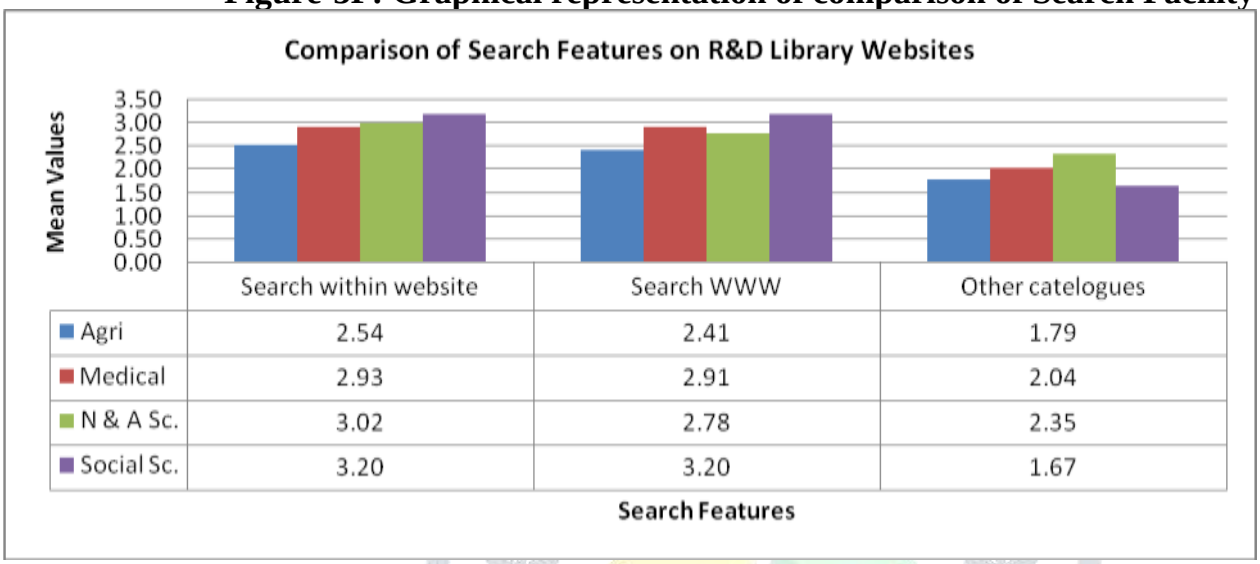
In addition to internal search facility, global search is also a value addition to the website. When data is viewed from this standpoint, it is observed that majority of the users from all the disciplines have rated this feature as good and very good. Of these, more than two-fifths of the users from Agriculture (44.93%) have rated this feature as good (18.84%) and very good (26.09%), followed by users from Medical (67.16%) who have also rated as good (23.88%) and very good (43.28%). It is also seen from the data that slightly more than half of the users from Natural and Applied Sciences (52.9%) have rated this feature as good (18.02%) and very good (34.88%). The percentage of users who have rated global search as very good is slightly less from Social Sciences (20%), but more than one-fourth (26.67%) have rated the same feature as excellent. Similar to internal search, global search is also rated as poor by majority of the users of all the disciplines.

Provision to search catalogues (Union catalogues) of the other institutions will help users to know what are the resources available in other libraries on the same subject area, so that other resources may be consulted on need basis. When data is analyzed from this view point, it is seen that the percentage of users who have rated facility to search other catalogues as good and very good is comparatively less from all the disciplines. Slightly more than one fourth of the users from Agriculture (27.54%), around one-third from Medical (34.33%) and Social Sciences (33.33%) and more than two-fifths from Natural and Applied Sciences (44.76%) have rated this feature as good and very good. Very small percentage of users have rated this feature as excellent (less than 5%) from all the disciplines, except from Agriculture and Social Sciences, wherein none of the users have rated this feature as excellent. Similar to the other two features under search facility, this is also widely rated as poor by most of the users.

Table-3: Statistical Comparison of Search Facility

Attributes	Agri		Medical		N&A Sc.		Social Sc.	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Internal Search	2.54	1.26	2.93	1.17	3.02	1.40	3.20	1.531
Global Search	2.41	1.28	2.91	1.31	2.78	1.48	3.20	1.531
Other catalogues	1.79	1.08	2.04	1.27	2.35	1.21	1.67	0.953
Average Rating	**2.246**		**2.626**		**2.716**		**2.69**	

Figure-3F: Graphical representation of comparison of Search Facility



Users from all the disciplines have rated search facility provided on the library websites of R&D Institutions almost equally. Overall, the average level of rating for search facility provided on library websites is equally average to good as the average score is 2.626 for Medical, 2.716 for Natural and Applied Sciences and 2.69 for Social Sciences, which are between 2 & 3. The average score for Agriculture (2.246) is relatively low, which is close to the average rating. This is graphically shown in figure (4.15.3F), where internal search and global search bar for all the disciplines stand at identical levels, while other catalogues bar shows a significant difference.

Cross referencing of mean values for links used with percentage table above (4.15.3) would match with higher mean values with higher percentage of users having rated this feature between average to good.

Table-4: Z Test Analysis for Search Facility

Attributes	Disciplines	Mean	SD	Mean	SD	Z*	Result
Internal Search	Agri Vs Med	2.54	1.26	2.93	1.17	2.18236	Significant
	Agri Vs N&A	2.54	1.26	3.02	1.4	3.17195	Significant
	Agri Vs SS	2.54	1.26	3.2	1.531	2.617227	Significant
	Med Vs N&A	2.93	1.17	3.02	1.4	0.504483	Not Sig
	Med Vs SS	2.93	1.17	3.2	1.531	1.002621	Not Sig
	N&A Vs SS	3.02	1.4	3.2	1.531	0.714402	Not Sig

Global Search	Agri Vs Med	2.41	1.28	2.91	1.31	2.582475	Significant
	Agri Vs N&A	2.41	1.28	2.78	1.48	2.358682	Significant
	Agri Vs SS	2.41	1.28	3.2	1.531	3.123714	Significant
	Med Vs N&A	2.91	1.31	2.78	1.48	0.66385	Not Sig
	Med Vs SS	2.91	1.31	3.2	1.531	1.040359	Not Sig
	N&A Vs SS	2.78	1.48	3.2	1.531	1.649624	Not Sig
Union Catalogues	Agri Vs Med	1.79	1.08	2.04	1.27	1.386211	Not Sig
	Agri Vs N&A	1.79	1.08	2.35	1.21	4.29951	Significant
	Agri Vs SS	1.79	1.08	1.67	0.953	0.709146	Not Sig
	Med Vs N&A	2.04	1.27	2.35	1.21	1.717317	Not Sig
	Med Vs SS	2.04	1.27	1.67	0.953	1.758806	Not Sig
	N&A Vs SS	2.35	1.21	1.67	0.953	4.014289	Significant

Internal and Global Search:

Statistical test shows that, there is significant difference for the comparison between Agriculture vs. Medical, Agriculture vs. Natural and Applied Sciences and Agriculture vs. Social Sciences and non-significant difference for rest of the comparisons, as test values are lower than the critical value.

Union Catalogues:

Test shows that the Z test values are lower than the critical value of 1.96 at 5% significance level. However, Agriculture vs. Natural and Applied Sciences and Natural and Applied Sciences vs. Social Sciences are an exception in this view, where Z test values are greater than the critical value.

Inferences:

- ❖ Use of internal search, global search and provision for searching other catalogues is consistent on library websites of R&D institutions of Medical, Natural and Applied Sciences and Social Sciences in India.
- ❖ Library websites of R&D institutions of different disciplines in India show lower ratings for providing access to catalogues of other institutions on similar area.

Conclusion:

The search facility of library websites plays a crucial role in ensuring effective access to information resources in the digital environment. A well-designed search interface enhances user experience by enabling quick, accurate, and relevant retrieval of library materials, including books, journals, databases, and institutional repositories. Features such as advanced search options, filtering tools, intuitive navigation, and responsive design significantly improve search efficiency and user satisfaction. Conversely, poorly designed search facilities can hinder information access, leading to user frustration and underutilization of library resources (Siraskar & Bhongade, 2025). Therefore, libraries of R&D must continuously evaluate and upgrade their search functionalities by adopting user-centered design principles, integrating modern discovery tools, and incorporating feedback from users. Strengthening the search facility of library websites is essential for maximizing resource visibility, supporting academic research, and reaffirming the library's role as a vital gateway to knowledge in the digital age.

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