

## DISCOVERY SERVICE IN SPECIAL LIBRARIES - AN IISR EXPERIENCE

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### Abstract

Discovery tools are emerging trend in new generation libraries. Discovery Service provides researchers with access to an institution's entire collection via a single entry point. These tools offer library users the ability to concurrently search the library catalogue and subscribed journals, consortia journals, institutional repository and other databases. This tool with its customisation and indexing options aggregate the metadata for the effective information retrieval on a single platform. In addition it displays a composite result for each item, as well as integrating records for print holdings and other content types. The Indian Institute of Spices Research (IISR), Calicut, a constituent body of Indian Council of Agricultural Research (ICAR) is a major Institute devoted to research on spices. The institute library, National Informatics Centre on Spices consists of a digital library wing (SpicE-library) incorporating the advancements in ICT and IT applications. Though the SpicE-Library website act as a gateway to all the resources available in the library, it could not fulfil the expectations of the researchers, since they were unable search all the databases simultaneously. In order to cater their needs EBSCO discovery service was initialised during 2013. In this paper discuss issues involved in customizing the EDS for special library and usage study and its impact. Usability test was conducted among different categories of researchers namely Scientists, Research Fellows and Ph.D. scholars using questionnaire. It was found that the researchers, especially the scientists are very much satisfied. The study of user's statistics using CeRA (Consortium for e-Resources in Agriculture) consortium data revealed that there is 36.6 % increase in users after introducing the Discovery tool. A comparative study of the information retrieval efficiency of three databases CABI, CeRA and EDS with same group of key words showed that there was an average of 6- 7 times increase in search results through EDS. This indicates that user's information needs are best met by discovery tools as they integrate all the information resources to a single window.

**Keyword:** Discovery service, consortia, EDS, usage study, information retrieval, digital library

### INTRODUCTION

The information and communication technology has rewrote the library service up to an extent with its increasingly powerful capacities like Integrated library systems, New service platforms and Discovery service tools. The discovery service is a new library service platform in the digital library environment that makes it possible to create a centralised index

of an institution's collection and are designed so that a single point of entry or Google like search box for library databases. In library, the user can have a single search box through which a best result for what they exactly looking for, which includes either the catalogue or full text. Discovery tools make the local collection more accessible by importing the metadata into index and apply one set of search algorithms to retrieve results. This gives totally different search experience in terms of speed, relevance and ability to interact constantly with the results. So these tools attained a great attention and are implemented by academic libraries. The EBSCO discovery service provides the libraries a solution to create a unified, customized index of an institution's information resources, and a means of accessing all that content from a single search box to support the information needs and maximize the research experience to the end-users.

The Indian Institute of Spices Research (IISR), Calicut, a constituent body of Indian Council of Agricultural Research (ICAR) is a major Institute devoted to research on spices. The institute library, National Informatics Centre on Spices consists of a digital library wing (SpicE-library) incorporating the advancements in ICT and IT applications. Though the SpicE-Library website act as a gateway to all the resources available in the library (Figure 1), it could not fulfill the expectations of the researchers, since they were unable to search all the databases simultaneously. In order to cater their needs EBSCO discovery service was initialized during 2013.

## LITERATURE REVIEW

An attempt was made to review of earlier studies conducted on the search effectiveness and importance of a discovery service .Williams; Sarah C and Foster, Anita K (2011) conducted a usability study titled "Promise Fulfilled? An EBSCO Discovery Service Usability Study" in Milner library of Illinois state University. The study revealed that EBSCO Discovery Service created better search experiences and could manage the problems of federated search to some extent. Thompson Jolinda L (2013) "Web-Scale Discovery in an Academic Health Sciences Library: Development and Implementation of the EBSCO Discovery" described in their paper that with the implementation of EBSCO, how it was able to identify and solve the issues with relevance of item retrieved, the appropriateness of system supplied facet terms and user difficulties with navigating the interface. A study titled "Evaluation of Web Discovery Services: Reflections from Turkey" was conducted in 2012 by Guleda Dogan and Salehattin Cihan Dogan to analyze the use and awareness of web scale discovery services in Turkey. The study revealed that Web Discovery Services are used by 52 of the Turkish universities, 39 state universities and 13 private universities. EBSCO Discovery Service and Serial Solutions Summon are most commonly used discovery services in Turkey. Fagan Jody Condit (2011) in his paper entitled "Federated Search is Dead-and Good Riddance!" reflects on the end of federated search software and the emergence of discovery tools. Author related a statistical study showing that EBSCO Discovery Service with EBSCO Integrated Search federated search add on has been significantly used compared to federated search. Foster, Anita K. and MacDonald, Jean B. (2013) conducted study to compare on user experiences with EBSCO Discovery Service and Summon at Illinois State University. The similarities and differences in user expectations and satisfaction with both discovery tools are explored in this article.

## IMPLEMENTATION OF EDS

The digital library of IISR equipped with latest IT & ICT facilities like high speed Internet facility, Wi-Fi connectivity, website and various digital resources like institutional repository (DSpice), CeRA, CAB Direct, SpicE-Books, OPEAC, online journals. It also encompasses internally developed tools like Spice bibliography, Journal finder, Agrititbits etc.

In order to implement the EDS, we collected all the digital resources of IISR library along with links and communicated this information to the discovery service provider. They customize, index and aggregated the metadata for the effective information retrieval on a single platform.

## METHODOLOGY

The usage study of EDS was conducted using questionnaire. All the library users of different categories like Scientists, Senior Research Fellows and Ph.D. students were participated in the survey. A comparative study was also conducted to evaluate the retrieval efficiency of CAB database, CeRA and EDS using same group of key words. Variation of usage of CeRA users before and after the implementation of EDS was analyzed. APS usage statistics was also used for this study.

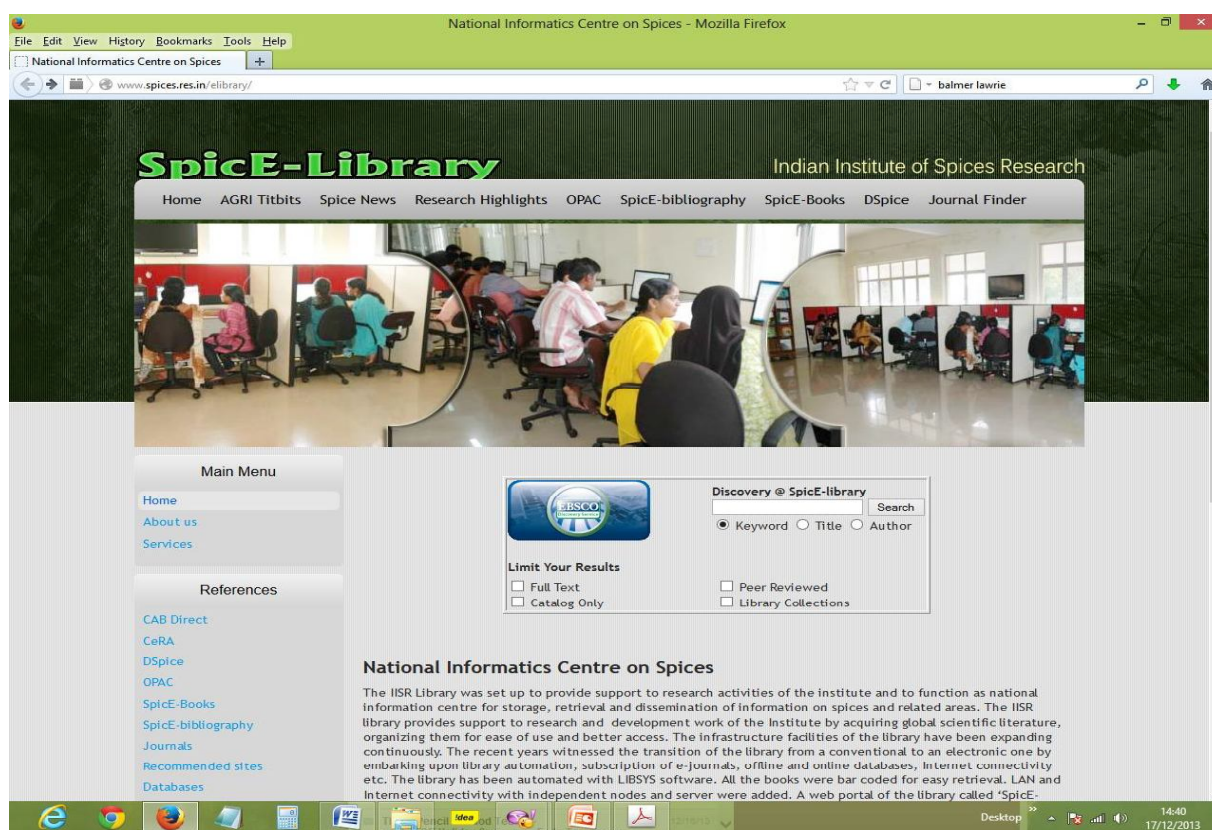


Figure 1. Home page of IISR library

Category	Daily (%)	Once in a week(%)	Occasionally(%)
Scientists	31	44	25
Ph.D. scholars	0	55	45
Research Fellows	13	33	54
Average percentage	15	44	41

Table 1. Percentage of researchers who visit the library site in various period of time

## FINDINGS

The Survey was conducted and all the library users consisting of Scientists, Senior Research Fellows and Ph.D. students participated in the survey and it is found that majority of the users of all categories visit the library site at least once in a week (Table 1).

The responses from various categories of library users for the question “How important is one integrated search” is given in Table 2. About 94% of the scientific category, 91% of Ph.D scholars and 80% of Research Fellows consider it is important to able to search articles, journals, books and other materials through the integrated search and none of them mentioned that it is not important.

Table 2. Response rate of library users towards integrated search

Category	Very Important (%)	Important(%)	Somewhat Important(%)
Scientists	44	50	6
PhD scholars	36	55	9
Research Fellows	33	47	20
Average percentage	38	50	12

The percentage of users who rated the satisfaction with EDS for catering their needs to find articles, journal and other materials from one search box is given in Table 3.

Table 3. Comparison of satisfaction with EDS

Category	Very satisfied (%)	Satisfied (%)	Somewhat satisfied(%)	Not satisfied(%)
Scientists	40	50	10	0
PhD scholars	19	36	27	18
Research Fellows	0	80	20	0
Average	20	55	19	6

This study indicates that 55% of all the users are satisfied, 20% very satisfied and 19% somewhat satisfied. 80% of the research scholars and 50% of the scientist expressed their satisfaction.

Table 4 shows that an average of 59% of users found EDS 'easy' and 16% of users found EDS 'very easy'. An overall of 98% of different category of users consider EDS is an easy tool to retrieve required information.

Table 4. Percentage response of users for getting required article through EDS

Category	Very easy (%)	Easy (%)	Somewhat easy (%)	Not easy (%)
Scientists	19	50	31	0
PhD scholars	28	54	18	0
Research Fellows	0	73	20	7
Average percentage	16	59	23	2

For the question "How would you rate the facilities of EDS" a majority 59% of users of all the three categories rated as useful and 16 % rated it is very useful. (Table 5)

Table 5. Percentage response of users towards the facilities of EDS

Category	Very useful (%)	Useful(%)	Somewhat useful(%)
Scientists	38	50	12
PhD scholars	9	55	36
Research Fellows	0	73	27
Average percentage	16	59	25

Table 6. Percentage response of users towards problem faced during the use of EDS

Category	Yes, I have had some problems (%)	Yes, but not sure if the problem was due to something else (%)	No, I haven't had any problems (%)
Scientists	68	19	13
PhD scholars	0	36	63
Research Fellows	73	13	13
Average percentage	47	23	30

As shown in Table 6 for the question 'Have you faced any problems such as software bugs, with your EDS?' users responded that there were some problems they are facing but they could not identify the reason behind it. Some of them mentioned that some duplicate research result was obtained.

'MyAthens' - a tool to connect to the online resources an organization was introduced in the library. This is a useful tool for the registered users to access all the online library resources remotely in 24x7. The adoptability of this tool was studied and it is found that about 20% of the users find it very satisfied and 39% are satisfied (Table 7).

Table 7. Percentage response of users towards their satisfaction with 'MyAthens'

Category	Very satisfied (%)	Somewhat satisfied (%)	Neither dissatisfied nor satisfied (%)	Dissatisfied (%)
Scientists	25	50	13	12
PhD scholars	27	27	36	0
Research Fellows	7	40	7	46
Average percentage	20	39	19	19

### EFFECT OF EDS ON OTHER DATABASES

CeRA usage study revealed that there is a considerable increase in overall usage of different services after the implementation of EDS (Table 8), especially in Journal list page and table of content. The American Psychopathological Society Journals (APS) usage statistics also revealed the same trend (Table 9). It is found that the usage of journals has increased 157% after the implementation of EDS.

Table 8. CeRA service usage statistics

Sl No	Service	Before EDS	After EDS	% Increase
1	Database search	545	622	14
2	Hard Copy	33	49	48
3	Journal List Page	33	69	109
4	Table of Contents Archive Page	24	32	33
5	Table of Contents Page	69	121	75
6	User Login	325	444	37

Table 9. APS Usage statistics

Journal	Before EDS	After EDS	% of increase
Molecular Plant-Microbe Interactions	15	16	7
Phytopathology	6	49	716
Plant Disease	14	25	79
Total for all journals	35	90	157

### RETRIEVAL EFFICIENCY

A study was conducted by using randomly selected same group of keywords through CeRA, CABI and EDS, while doing search, it was observed for the same group of keyword an

average of 20 records were retrieved from CeRA, 85 records were from CABI and 643 records were from EDS. This revealed the search capability of the integrated search tool.

## CONCLUSION

Though the Discovery service was implemented for a short period of time in the IISR library it was found that the overall satisfaction of different categories of users were high. The facility to access the relevant information through a single window was widely accepted and appreciated by most of the users. The study of usage statistics revealed that the usage of individual databases has increased considerably after the implementation of discovery service and the user's survey revealed that the integratrated search is very easy and timesaving than before. The survey report showed that the remote access tool "My Athens "is not widely used.

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