

# Web-Based Library Environment in the Changing Scenario: A User Survey in the Institute of Genomics and Integrative Biology (CSIR- IGIB), Delhi, India

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**Abstract** - The purpose of this paper was to assess the quality of web-based library services of the CSIR- IGIB, Delhi, India. The study was conducted during the period of Sep- 2017 to Nov- 2017. A questionnaire was the main instrument for the data collection. A total of 100 questionnaires were distributed, out of which 63 filled questionnaires were received by the researcher. The questions were asked related to the awareness in respect to web-based library services, extent of using web-based services and their perception, opinion or satisfaction level towards the different attributes of web-based library services offered to them. The results of study revealed that though few obstacles hinder the full exploitation of web-based library services like slow internet connectivity sometime, lack of orientation program regularly and etc., yet the users of IGIB library have positive attitude towards web-based library services and they are very much satisfied with web-based library services.

**Keywords:** library websites, awareness, environment quality, outcome quality, delivery quality

## I. INTRODUCTION

Intervention of Internet and web innovation in libraries has assumed essential part in changing library from the conventional in-house to electronic administrations. Web has empowered library services to be offered 24X7, past the ordinary library hours to be accessed by the clients from any place from the variety of range of gadgets, for example, tabs, PCs, desktops and smart phones. This has given the clients the comfort to viably and effectively utilize library services without again and again going to the library.

In special libraries the quality of delivery of library services to its users, i.e. scientist is a key factor in determining the quality of the library. This intervention of technologies in libraries, have made it essential to evaluate the library services in order to assess the quality of library services. Now days, the special libraries provide access to web based library resources and web based library services. The web-based services which includes- web-based reference services, web-based acquisition services, web-based cataloguing services, web-based classification services, web-based periodical services, etc, helps the library to improve its social status.

The rapid innovation in services available via internet has possessed a high risk in preserving the library relevancy as the interest of users has shifts towards the information and

services provided by different service providers available on internet. Therefore, to overcome this challenge and to sustain the user loyalty, it has become necessary for the special libraries to maintain the quality of their web based services by constantly assessing them from time to time.

This study looks at the perception of users for the different criteria of web-based library services offered by CSIR-IGIB, Delhi library to its users. To mark the satisfaction level of users the researcher has used three criteria namely web based library services environment quality, web based library services delivery quality and web based library services outcome quality. In addition the study highlights the awareness level, extent of using web-based library services, the range of web based library services being offered and their opinion for the web-based library services.

## II. SIGNIFICANCE

India is a developing country and a development of a developing country basically depends on the quality of the research and development activities taking place in the research institutes of the country. Since CSIR is one of the top most research and development institute of India and its main aim is to provide a scientific and industrial researcher that maximizes the economic, environmental and human welfare for the people and development of India, therefore this study is focused on the web based library services of the Institute of Genomics and Integrative Biology (CSIR - IGIB), Delhi.

The users of CSIR's libraries have more specific information demands related to their research and development purpose. Therefore, use of web to deliver efficient library services is become a essential for the CSIR libraries. To support the growing demand of the users there is a need to upgrade the current library infrastructure facilities in order to transform conventional library resources and services to online information resources and services for providing better services to the library users. The more current state of web based library services in special libraries like CSIR's are studied the more current penetration rate of the web based services will be increased in these libraries. Hence, this study is step towards that

movement, which is an attempt to do a survey of web-based library services of the CSIR-IGIB library, Delhi.

### III. METHOD OF EVALUATION

The study is based on the subjective approach for the evaluation of the Web-Based Library services which greatly depends on the viewpoint of the ultimate authority of a library, the library user's opinion and their attitude towards the services which thereby helps in determining the degree of success of the library services. The goal of the study includes; 1. To know the awareness for the web-based library services 2. To know the extent of using web-based library services by the users 3. To know the opinion of users for web-based library services environment quality, web-based library services delivery quality and web-based library services outcome quality

### IV. COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR)

Council of Scientific & Industrial Research (CSIR) is an Industrial Research Organization, founded in 1942. It is funded by the Science and Technology Ministry, Government of India and is working as an autonomous organization. The main aim of CSIR laboratories is to provide a scientific and industrial researcher that maximizes the economic, environmental and human welfare for the people and development of India.

### V. INSTITUTE OF GENOMICS AND INTEGRATIVE BIOLOGY (IGIB) LIBRARY

IGIB Jammu is a three-storey building and has very rich library resources in terms of books, periodicals, databases and other intellectual materials. Records show that the Library was functional in this campus even during the pre-independence years. The IGIB library is known as 'IGIB Knowledge Resource Centre (KRC)'. The primary objective of the IGIB KRC is to satisfy the information needs of the users by providing them with the best and updated resources and services which enable them to themselves abreast with trends and development in the field of Biotechnology, Botany, Natural Products Chemistry (NPC) and Quality Control.

The library has a rich collection of almost 27,500 Books, 17,000 Back Volumes, 04 Online Databases, 03 Online Archival Databases and many other print and e-resources. The library also offers a high range of Web-Based services to its users.

### VI. REVIEW OF LITERATURE

Arif, Ameen and Rafiq (2017) have done a study to assess students' satisfaction with the use of the Allama Iqbal Open University (AIOU) web-based services titled as "Assessing distance education students' satisfaction with web-based services: A Pakistani's perspective". The findings of the study revealed that the users of the AIOU library were satisfied with the web-based library services except for

tracking systems of online books, web-OPAC and Web radio service.

Okon, Etim and Inyang (2015), in their study on "Marketing of Web-Based Library Resources in Nigerian Universities", assessed the current status of university library websites which was examined in terms of visibility, online services/resources and networking with subject gateways, professional associations etc. The researchers suggested that the digital libraries should make it mandatory to link with professional organizations like NLA, LRCN, etc. so that users can access unlimited sources and services.

Mohammad, Garba and Umar (2014) analysed the content of functional websites of ten University libraries in Nigeria in their study "University Library Websites in Nigeria: an Analysis of Content". The findings of the study concluded that websites had information about library services and physical holdings. The study recommended improvement of librarians' skills as well as inclusion of website development courses in the library curriculum for the improvement of library websites in Nigerian universities.

Anaraki and Babalhavaeji (2013) in their work "Investigating the Awareness and Ability of Medical Students in Using Electronic Resources of the Integrating Digital Library Portal of Iran: a Comparative Study" revealed that the awareness and utilization level of students in the three Universities were lower than the average and those who were not aware of the existence of the IDL portal used general search engines to meet their information needs. The respondents admitted that lack of awareness about the IDL was their most significant problem. The study assisted administrators of the University libraries in developing a more complete understanding of students' electronic information needs and barriers that may inhibit their optimal use.

Khalid and Richardson (2013) investigated 67 US academic libraries listed in the Association of Research Libraries membership in their study "Impact of Web 2.0 Technologies on Academic Libraries: a Survey of ARL Libraries". They examined that each library was using some form of web 2.0 technology such as RSS, social networking sites, Instant Messaging, blogs and wikis. They found a significant positive correlation between the extent of web 2.0 adoption in libraries and librarians' opinion about their advantages.

Anunobi and Ogbonna (2012) studied the use of web 2.0 application by the librarian titled as "Web 2.0 use by Librarians in a State in Nigeria". The findings of the study revealed that the low awareness, lack of computer expertise, motivation, facilities and access restriction were the major challenges in using web 2.0 tools by the librarians.

Balaji and Kumar (2011) surveyed "Use of Web technology in Providing Information Services by South Indian Technological Universities as Displayed on Library Websites". The findings of the study revealed that the most

of technological University libraries were still working in the conventional library set up and the here has been a relatively low rate of dispersal of web information services.

## VII. ANALYSIS AND INTERPRETATION

### A. Awareness towards the Web-Based Library Services

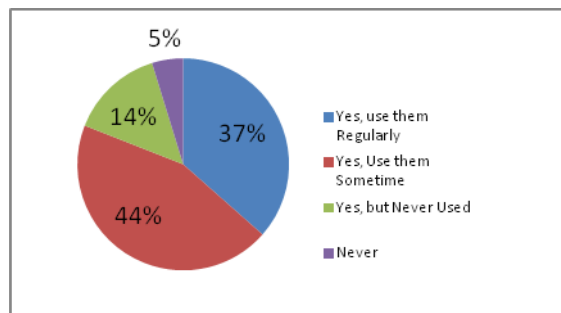


Fig. 1 Awareness

The fig 1 shows that the 44% of the IGIB library users were aware of the web-based library services but uses them sometimes, whereas, 37% were aware and uses it regularly on the other hand 14% were aware but never used and 5% have never heard of their library web-based services.

### B. Extent of using Web-based library services

The Fig. 2 shows the frequency of using library by IGIB users. 44% users use web-based library services on daily basis, 37% users use occasionally, 11% use weekly, 5% use on monthly basis whereas only 3% use fortnightly.

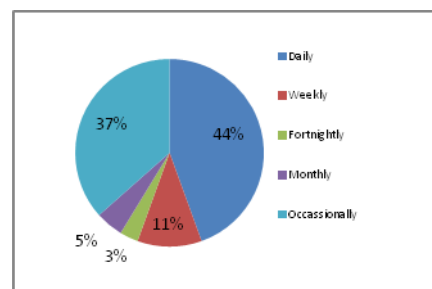


Fig. 2 Frequency of Using WBLS

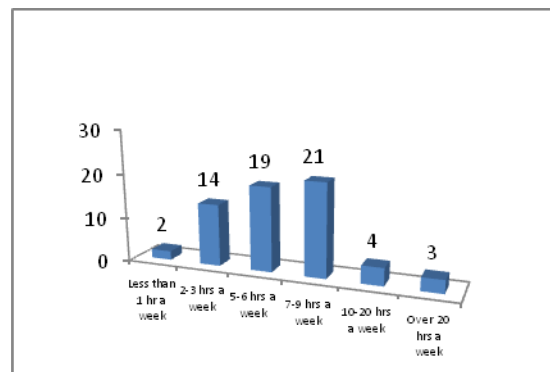


Fig. 3 Time Spent on WBLS

The Fig. 3 depicts the time spent by users in accessing information through Web-based library services. It shows that out of 84 questionnaires received 21 users (i.e. 33%) spend 7-9 hrs daily, 19 users (i.e. 30%) spend 5-6 hrs daily, 14 users (i.e. 22%) spend 2-3 hrs daily.

### C. Range of Web-Based Library Services offered by library

TABLE I VARIETY OF WEB-BASED LIBRARY SERVICES

Services	None	Basic	Average	Advanced
WEB-BASED REFERENCE SERVICE				√
WEB- BASED ACQUISITION SERVICE				√
WEB-BASED CIRCULATION SERVICES				√
WEB-BASED CATALOGUING SERVICES				√
WEB-BASED PERIODICAL SERVICES				√
WEB-BASED GENERAL/ADMINISTRATIVESERVICES			√	
WEB FORM FACILITY			√	
WEB APPLICATION TOOLS/ SOCIAL NETWORKING SITES	√			

The Table I shows that the IGIB Library offers variety of web-based library services to its users in which web-based reference service, acquisition service, circulation service, cataloguing and periodical services are of advance nature whereas web-based administrative services and web form facility is of average in nature. The IGIB library does not offer the facility of access to web application tools/ social networking sites through library website to its users.

### D. Environment Quality of web-based library services: pertaining to the attributes related to the website user interface

The Fig. 4 show that the users of IGIB library were basically agrees with the access and collection through the web based library services. 38 users (60.32%) were agree that the service provides trusted information as compared to the internet, 35 users (55.56%) agrees that the online information resources are clearly arranged by subject, 34 users (53.97%) agrees that the website is convenient to use, 31 users (49.21%) agrees that the service provides access to a wide range of electronic resources in their subject area and 22 users (34.92%) agree that the website has all working links.

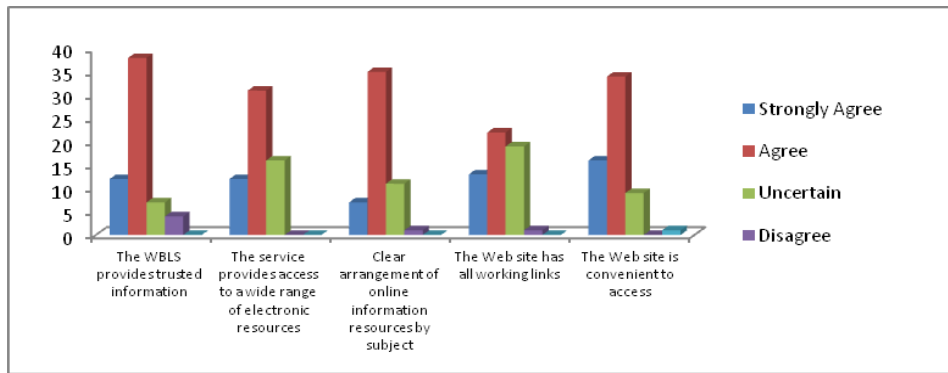


Fig. 4 Perception toward the Access & Collection arrangement on library website

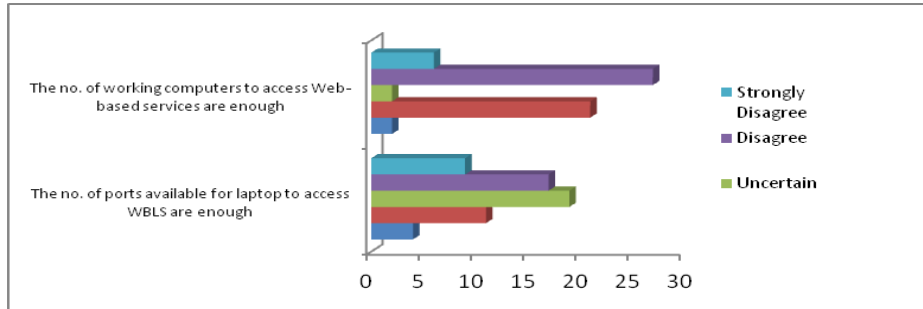


Fig. 5 Perception towards the equipments offered by library to access web-based library services

The Fig. 5 shows that 19 users (i.e. 30.16%) were uncertain about the availability of enough ports for laptop use to access Web-based services whereas 27 users (i.e. 42.86%) were disagreed that the library has enough working computers to access Web based services.

*E. Delivery Quality of web-based library services- attributes related to patron and website interaction during the usage of web-based library services.*

The Fig. 6 indicates that 33 users (i.e. 52.38%) and 27 users (i.e. 42.86%) were uncertain that the online librarians

understand their specific information needs and are always willing to help them respectively, and 26 users (i.e. 41.27%) were agreed that online librarians interact with them in courteous manner.

The Fig. 7 indicates that 25 users (i.e. 39.68%) agree that the instructions on remote access are easy to follow whereas 19 users (i.e. 30.16%) and 18 users (i.e. 28.57%), were uncertain that the site allows them the convenience of sending query online and the clear, precise instructions at the time of use, respectively.

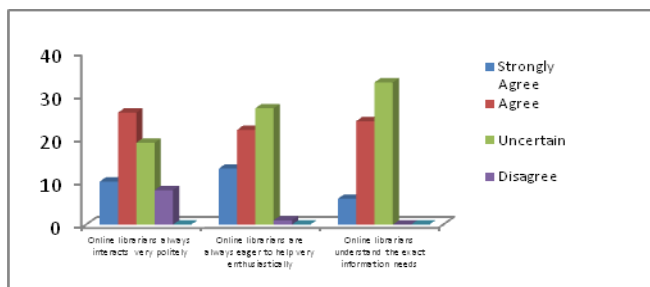


Fig. 6 Perception towards the support given by online librarians to its users

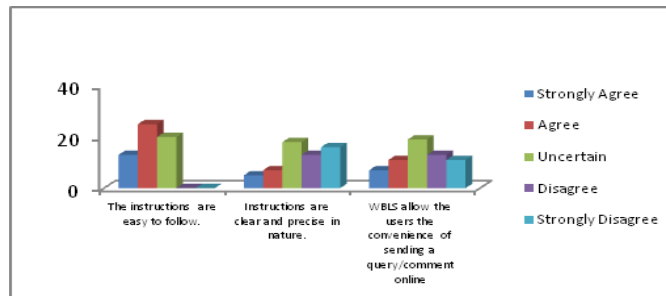


Fig. 7 Perception towards the features user friendly features offered by the website to its users'

F. Outcome Quality of web-based library services: deals with satisfaction level of the users after delivery

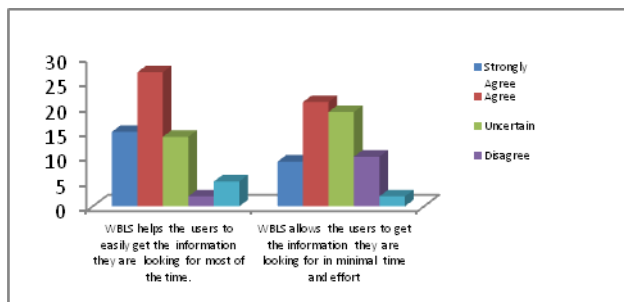


Fig. 8 Perception of users towards the functional benefits they get after using the web-based library services

The Fig. 8 depicts that 27 (42.86%) users and 21 (33.33%) users were agreed that using web-based library services they get information most of the time they were looking for and in minimal time and effort respectively.

The Fig. 9 depicts that 37 users (i.e. 58.73%) were strongly agreed that they feel very happy when they get the exact

information, 28 users (i.e. 44.44%) agree that the web based library services have interesting innovative features whereas 24 users (i.e. 38.10%) were uncertain that the web-based library services makes them feel that the library is truly dedicated to fulfilling my needs.

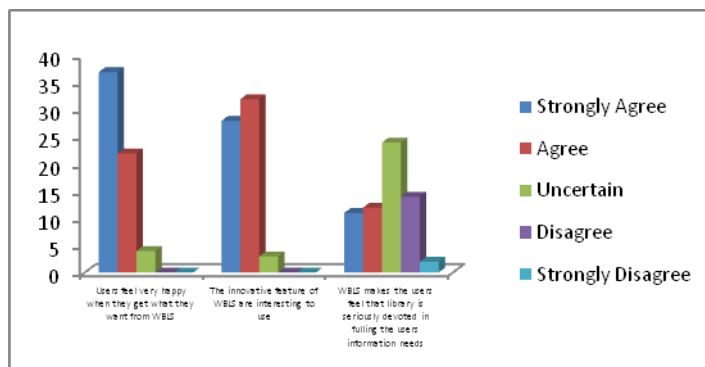


Fig.9 Perception of the users with reliability of the web-based library services

VIII. FINDINGS

1. The traditional method of offering library services has changed drastically in the present scenario to web-based library services. Therefore, the expectations of the users have also changed accordingly. So, it becomes necessary to know that how much users are aware of the institutional web based library services. It was found that though the 37% users of IGIB were aware of the Web- based library services and were the regular user of it but apart from it 58% users were also aware of the web based library services but were not the regular user of it.
2. To know the extent of web based library services being used it was found that 44% users use the web-based library services on daily basis and 33% users spend almost 7-9 hrs per day to access information from web based library services.
3. The users of IGIB library are satisfied with the Access & Collection provided through library website
4. The users of IGIB library were not agree with the equipments offered to them by the library.

5. It was found that most of the users were agreed that online librarians are always willing to help them and interact with them in a courteous manner.
6. the users believe that the instructions on remote access are easy to follow
7. Most of the users believe that they get functional benefit by using web based library services as they could easily get the information they were looking for most of the time and in minimum time and effort respectively.
8. Most of the users believe that they also get emotional benefit as they feel very happy when they get the exact information as the services have interesting innovative features.

IX. CONCLUSION

The web-based library services have made professional life simpler and have become a basic necessity of academic life. The result of the study demonstrate that the users of IGIB library are well aware of the web based services offered to them via library and they are exploiting these services to maximum to get the maximum benefits. The study also

reveals that the user's perception towards the environment quality, delivery quality and outcome quality of the web based library services was quite satisfactory. Thus, the researcher concluded that the IGIB library is providing its users the qualitative web-based services.

## X. SUGGESTIONS

Users were asked to suggest the means for strengthening the web-based library services rendered by their library. The following are the major suggestions collected from the IGIB library for improving the web-based library services:

1. The users think there should be more links to web-based library services.
2. Bandwidth and wireless connectivity should be increased.
3. Range of open and free access journal via web based library services should be increased
4. Orientation program or web-based tutorials for users should be organized from more frequently.

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