Evaluation of the Indian Institute of Science Education and Research (IISER) Library Websites in India: A Case Study

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ABSTRACT

This paper is intended to evaluate indicators of library websites of the Indian Institute of Science Education and Research (IISER) libraries in India both quantitatively and qualitatively on the basis of pre-defined indicators. Efforts have been made to assess the importance of a quality website for the library regardless of the nature of the library. In this regard, the library website is the only way to make available services to the end users of the knowledge society. The present paper also focuses on the accuracy and authenticity of the website contents. About 165 Evaluation indicators of library websites have been designed and a comparative study of 5 IISER Bhopal, Pune, Mohali, Kolkata, and Tirupati library websites has been presented.

KEYWORDS: Academic Libraries, Library Websites, IISER Libraries, Website Indicators

1. INTRODUCTION

With the application of information and communication technology in libraries, the role of the library has changed. The Internet and World Wide Web (WWW) have become very important information communication tools. Therefore, the significance of the Internet and websites can no longer be ignored. With application of ICT, Internet and World Wide Web, accessibility and availability of information in libraries and documentation centers have been made easier because of easy-to-use, share, disseminate, web’s graphic and interactive capabilities. Such types of characteristics allow patrons to search databases, view full-text research articles along with tables, lithographs, and pictures. With use of the capabilities of websites, the institutions can promote their activities, products and services.

Received on 15.8.2019, Accepted on 05.10.2019

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2. REVIEW OF RELATED LITERATURE

Devi, Ksh. Krishna and Verma, Manoj Kumar (2018) have evaluated IITs and NITs library websites in India and found that the based on identified criteria, IIT Kanpur library website scored first position and NIT Agartala scored the last position among all engineering institutions taken for the study.

Lalbiakmawia, R. and Verma, Manoj Kumar (2017) revealed that IIMs Library websites supported various file formats. In overall ranking of nineteen IIMs Library websites, IIM, Lucknow has scored the highest (7.2) RWIF scored first position while IIM, Rohtak and IIM, Kolkata scored second and third position with RWIF 0.01149 and 0.010663 respectively.

Kumar, Vinod and Bansal, Jivesh (2014) shows that none of the library website scored the criteria of a good quality website. If one new IIT website has one criteron, it misses another one. This applies to websites of all the new IITs and it may happen due to the recent origins of these IITs.

Madhusudan, M. and Ahmed, Noushad (2013) revealed that the scrolling news and notices and streaming features are too meagre, visual content features, and external file size of the images are not appearing on the study websites and also found that the IIM libraries are lagging behind exploring the Web 2.0 tools for library services.

Konnur, P.V., Rajani, S. and Madhusudan, M. (2010) suggested in their study that academic libraries should be implemented internally as well as externally followed by automated and manual periodic evaluation of their websites. It is also revealed that websites are not using the full potential of the library portal.

3. STATEMENT OF THE PROBLEM

The library websites play a pivotal role for providing Web-based library services to the researchers, faculty members and students. The Library website provides remote access to information easier, viable, and economical and also keeps it up-to-date. There is huge demand for innovative and web-based library services to be provided by the academic libraries. Therefore, most of the libraries in India and abroad have developed and designed websites to present and access their valuable resources and services.

There are many other research papers published on various evaluation criteria of management (IIMs), engineering (IITs, and NITs) and university library websites except pure science research library websites. In view of this, it is necessary to undertake in-depth evaluation of the Indian Institute of Science Education and Research (IISER) websites and an effort is made in this research paper for a useful presentation and perusal for the academic community.

4. OBJECTIVES OF THE STUDY

The study aims at achieving the following objectives

- To identify the IISER library websites in India.
- To determine the various features of IISER library websites in India.
- To identify criteria for the evaluation of IISER library websites in India.
- To evaluate IISER library websites with the identified criteria for the verification of reliability, validity and usefulness.
- To rank the under study library websites bases on identified criteria.
5. SCOPE AND LIMITATIONS

The present study is limited to the five IISER library websites of India and based on the evaluation criteria of the accuracy, relevancy, currency, presentation, organization and structure, URL maintenance and features.

The evaluation of five IISER library websites is carried out with the aim of verifying the validity, reliability and the usefulness of identified criteria. These can be considered as broad-based criteria for evaluation of IISER library websites in India. The following IISER library websites were selected for the study:

- Indian Institute of Science Education and Research, Bhopal
- Indian Institute of Science Education and Research, Pune
- Indian Institute of Science Education and Research, Mohali
- Indian Institute of Science Education and Research, Kolkata
- Indian Institute of Science Education and Research, Tirupati

6. METHODOLOGY AND EVALUATION CHECKLIST

The present study was limited to five IISERs library websites in India, i.e. IISER-Bhopal, IISER-Pune, IISER-Mohali, IISER-Kolkata, IISER-Tirupati. The evaluation criteria for the Web contents analysis of the IISERs Library website/Web page have been set up keeping in mind the accessing point of the website by the users. Evaluation criteria with 165 parameters have been designed to analyze the web contents of IISER libraries.

7. DATA ANALYSIS AND INTERPRETATION

The data analysis part started from June 3, 2019 to July 4, 2019 and the data was again checked and verified during August 1 to August 31, 2019. The study was categorized in two variables ‘Yes’ and ‘No’ and the scores were provided for the answer ‘Yes’ (1) and ‘No’ (0). All evaluation criteria were checked from the checklist. After Specific features were checked from the checklist, one point was given to the assigned feature of the IISER library website. Hence, in the present study of evaluation of the Indian Institute of Science Education and Research (IISER) library websites in India the designed evaluation criteria were followed. The scoring system was adopted for the website evaluation.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Scored Allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
</tbody>
</table>

Based on the scoring points 165 parameters points were devised. The five point rating scale was derived based on the maximum score points of 165 evaluation points and the range of rating to rank organizations is based on the points as under:

- More than 140: Excellent
- 105-140: Very Good
- 70-105: Good
- 36-70: Average
- 1-40: Need Improvement

On the basis of the above 165 features included in the checklist, five IISER library websites were checked and evaluated to collect the primary data for the present study.

7.1 Availability of Dedicated Library Websites in IISER

The library website is a set of pages to evolve as a gateway for providing Web-based services to the faculty members, researchers and students. In addition, it has provided the facilities of remote access
to information more easy, viable, economic and up-to-date. The library website is also a platform for
the library professionals to communicate and disseminate the information relating to the library with
their users on an online mode.

Table 1: Availability of Dedicated Library Websites in IISER

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the IISER</th>
<th>URL of the Library Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Indian Institute of Science Education and Research, Bhopal</td>
<td><a href="https://www.iiserb.ac.in/library/koha">https://www.iiserb.ac.in/library/koha</a></td>
</tr>
<tr>
<td>2.</td>
<td>Indian Institute of Science Education and Research, Pune</td>
<td><a href="http://www.iiserpune.ac.in/~library/">http://www.iiserpune.ac.in/~library/</a></td>
</tr>
<tr>
<td>3.</td>
<td>Indian Institute of Science Education and Research, Mohali</td>
<td><a href="http://library.iisermohali.ac.in/">http://library.iisermohali.ac.in/</a></td>
</tr>
<tr>
<td>4.</td>
<td>Indian Institute of Science Education and Research, Kolkata</td>
<td><a href="https://www.iiserkol.ac.in/web/en/facilities/library/">https://www.iiserkol.ac.in/web/en/facilities/library/</a></td>
</tr>
<tr>
<td>5.</td>
<td>Indian Institute of Science Education and Research, Tirupati</td>
<td><a href="http://www.iisertirupati.ac.in/library/library.php">http://www.iisertirupati.ac.in/library/library.php</a></td>
</tr>
</tbody>
</table>

7.2 Evaluation Criteria of IISER Libraries’ Websites and Total Score of Content Analysis

With the design of the five-point rating scale discussed above, the point was derived on the basis of
the highest score of 165 evaluation criteria. The present study aims to find the best website content
available in the IISER library websites.

Table 2: Evaluation Criteria of IISER Libraries’ Websites and Total Score of Content Analysis

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Score Point</th>
<th>Name of IISER Libraries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>More than 140: Excellent</td>
<td>IISER, Bhopal; IISER, Mohali</td>
</tr>
<tr>
<td>2.</td>
<td>105-140: Very Good</td>
<td>IISER, Pune</td>
</tr>
<tr>
<td>3.</td>
<td>70-105: Good</td>
<td>IISER, Kolkata</td>
</tr>
<tr>
<td>4.</td>
<td>36-70: Average</td>
<td>IISER, Tirupati</td>
</tr>
<tr>
<td>5.</td>
<td>1-40: Need Improvement</td>
<td></td>
</tr>
</tbody>
</table>

The study shows that IISER, Bhopal and Mohali Libraries’ website comes under the excellent category
and they scored more than 140 points followed by IISER, Pune library website/webpage scored 108
points which comes under very good category. The study also reveals that IISER, Kolkata scored 76
points which comes under good category and IISER, Tirupati library websites comes under average
category and scored 45 points. The lists of the five-point rating scale scored by the IISER library
websites are given in Table 2.

7.3 Ranking of IISER Libraries’ Websites on the Basis of Total Score

The ranking of the IISER libraries’ websites is listed in the Table 3. The ranking score points obtained
by the IISER Libraries are based on the availability of Web content. The study revealed that IISER,
Bhopal obtained (142) highest score point followed by IISER, Mohali (141), and IISER, Pune (108)
among the five IISER library websites. IISER, Kolkata was placed in the fourth and IISER, Tirupati in
last position among the IISER library websites in India.
Table 3: Ranking of IISER Libraries’ Websites Based on the Total Score

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the Organization</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Indian Institute of Science Education and Research, Bhopal</td>
<td>142</td>
</tr>
<tr>
<td>2.</td>
<td>Indian Institute of Science Education and Research, Pune</td>
<td>108</td>
</tr>
<tr>
<td>3.</td>
<td>Indian Institute of Science Education and Research, Mohali</td>
<td>141</td>
</tr>
<tr>
<td>4.</td>
<td>Indian Institute of Science Education and Research, Kolkata</td>
<td>76</td>
</tr>
<tr>
<td>5.</td>
<td>Indian Institute of Science Education and Research, Tirupati</td>
<td>45</td>
</tr>
</tbody>
</table>

8. SUGGESTIONS

On the basis of the present study evaluation of the websites and the subsequent data analysis and their findings of the study have enabled the researcher to provide some practical suggestions regarding improving the Web-based innovative library services expected from the study websites. The main suggestions are as follows:

- The library website should provide rich contents, RSS feeds, virtual library tours, instant messaging, bulletins, boards, discussion forums, and online library and floor maps, FAQ the new dynamic level of Web-based services.
- The library website must make the portal interactive by hosting the announcements about new library services, programmes and resources.
- The evaluation of library websites should be made on a consistent basis to update the library website frequently and also provide the last update of the site and pages.
- The Webmaster must check Web pages thoroughly using different browsers while uploading any new page on the website so that he/she ensures that the page should be similar in all the browsers.
- There should be a provision of online feedback survey on the website for regular interaction and websites should be regularly redesigned based on the users’ feedback.
- There is provision of Web forms in each Web-based library Services should be in the study websites to attract suggestions, comments about the pages.
- Librarians should explore innovative ideas and effective tools for publishing content and discovering the potential for communication and promotion of library services and resources.
- It is essential for the study library websites to implement manual and automated periodic evaluation of their websites.

9. CONCLUSION

In the present era, the academic libraries’ websites represent their collection, services and user-oriented gateways to rich, quality content and they play a pivotal role in research and learning process. Therefore, the evaluation of libraries’ websites should be done periodically to ensure that the structure and up-to-date Web content are available in the website. It is very important to evaluate the website based on the various criteria. The study reveals that study websites are yet to exploit full potential of the Web-based forms, with dynamic content web portals with Web 2.0 and Web 3.0 technologies. So, the present study was undertaken with 165 criteria that emerged with consortia-based services, OR Code, EM and RFID implementation, outreach programmes, reference management, open science, virtual/digital reference service, Ask librarian, discovery services, Web 2.0 and 3.0 based services, social media, etc. The present study suggests that it needs to enhance the performance of the IISER, Tirupati library websites.

REFERENCES

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