Use Of Web Based Tools For Modernizing Of Central University Libraries Of North East India: A Facet To Modernization.

Phool Rani Das  
Research Scholar, Department of Library and Information Science, Gauhati University, Ghy-14.

Dr. Narendra Lahkar  
Former Professor and Head, Department of Library and Information Science, Gauhati University, Ghy-14.

Abstract

Every library must have a good library website to deliver resources and services to users wherever and whenever needed. Users can access online resources and services through website without visiting the library. Hitherto developing a good library website is a part of modernization of a library. The study examines the present status of online resources and services; and also evaluates the web 2.0 tools and its application in Central University Libraries of North East India. Total 8 Central University Libraries of North East India are examined. The study analyses the content of library websites of Central University Libraries of North East India. The result revealed that most of the Central University Libraries of North East India provide online resources and services through their website. Most of the Central University Libraries of North East India use web 2.0 tools for promotion of web based collection and services.

Keywords: Web based resources, Web based services, University Libraries, Web 2.0, Website
0. Introduction

WWW (World Wide Web) a global information system has brought tremendous changes and has affected every sphere of activities of any organization. To extend library resources and services of modern library, use web technology is inevitable. Application of web technology in University library enables to provide updated and new information to the users anytime anywhere. On the process of modernization, the University library should possess a well develop library website of its own to let users explore various resources and services of the organization. The role of library website has become more prominent in the delivery of information resources and services as a part of modernization of the University libraries. Today online resources and services and use of web 2.0 tools in University libraries have become focal agenda due to unprecedented changes and demands from the users. Owing to the advent of technology, users now prefer information available on online mode instead of physical visit to the library. Library website has grown from static to comprehensive gateways to online resources and services (Margam, 2012). It is a challenging task for LIS professionals to design and maintain a library website to cater the needs of the wide spectrum of users. Library website provides information about history of library, its resources, services, library staff, rules & regulations, opening hours, etc. Library website acts as e-brochure where all the information is available online for users in 24/7 days whenever wherever. To keep the library website updated and provide all the library information available to users is an enormous challenge for LIS professionals.

1. Literature Review

Sheetal & Kumar (2022) examines the web-based library collection and services provided by Central University Libraries of North India. Web-based content of 10 Central University Libraries of North India were analyzed for the study. The study revealed that each University Library has website of its own and most of the libraries have been providing services through library website to the users.

Ambika & Ganesan (2021) analyzes the web contents of 13 Central University Libraries of India. For the study, 29 standard checklists were used and the ranking of the Central University Libraries are based on assessment of the result. The study reveals that variations are found in the websites of Central University Libraries. Most of the
Central University Libraries’ websites do not provide information on mission statement, copyright information, sitemap or location of the library and library committee.

Hombali (2021) presents the best practices of designing user friendly library websites. The author suggests developing user friendly website that ensures easy access to library resources and services; east to navigate, provide clear and concise information; use of clear and descriptive tags for images and videos; to ensure the website is compatible with assistive technologies. The paper highlights the use of analytic tools to track users’ interaction with the website and considers users feedback as important tool for improvement of the website design and content.

Bulla & Hadagali (2020) evaluates the performance and quality of the content of library websites of Central Universities in India. For analysis of library website, GTmetrix tool has been used. The study evaluates the contents and performance grade of 33 Central University Libraries of India. The study reveals that there are disparity in content coverage and performance grade. Most of the library websites provide information related to collection, photography and e-resources. There is inadequate information about services viz. FAQ's (Frequently Asked Questions), feedback, ask a librarian and facilities for search option.

Brahma, Verma & Sinha (2019) examined Universities of North East India that are in top 7 ranking by National Institutional Ranking Framework (NIRF) in 2018. The study was based on the domain and page authority, top followed links to the site, spam score, internal followed links and external followed links, total linking domains and followed linking domains, and the web impact factor of the top 7 Universities of North East India.

2. Objectives of the study

2.1 To highlight the web- based resources and services of Central University Libraries of North East India

2.2 To analyze the content of websites of Central University Libraries of North East India

2.3 To find out the web 2.0 tool used for promotion of online resources and services in Central University Libraries of North East India.
3. Scope of the study

There are 56 Central Universities in India. The area of the present study is North Eastern Region (NER) of India. Out of 56, 10 Central Universities belong to North Eastern Region of India. The study entitles “Towards modernization: web based resources and services in Central University Libraries of North East India” covers 8 Central Universities of North East India. The Central Universities covered for the study has been listed below in Table 1:

Table 1: Profile of Central Universities of North East India

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Central University</th>
<th>Location</th>
<th>Estd. Year</th>
<th>Abbreviation</th>
<th>Name of the Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assam University</td>
<td>Silchar, Assam</td>
<td>1994</td>
<td>AUS</td>
<td>Rabindra Library</td>
</tr>
<tr>
<td>2</td>
<td>Manipur University</td>
<td>Imphal, Manipur</td>
<td>1972</td>
<td>MU</td>
<td>Central Library</td>
</tr>
<tr>
<td>3</td>
<td>Mizoram University</td>
<td>Aizawl, Mizoram</td>
<td>2001</td>
<td>MZU</td>
<td>Central Library</td>
</tr>
<tr>
<td>4</td>
<td>North East Hill University</td>
<td>Shillong, Meghalaya</td>
<td>1973</td>
<td>NEHU</td>
<td>Central Library</td>
</tr>
<tr>
<td>5</td>
<td>Rajiv Gandhi University</td>
<td>Itanagar, Arunachal Pradesh</td>
<td>1984</td>
<td>RGU</td>
<td>Central Library</td>
</tr>
<tr>
<td>6</td>
<td>Sikkim University</td>
<td>Gangtok, Sikkim</td>
<td>2008</td>
<td>SU</td>
<td>Teesta-Indus Central Library</td>
</tr>
<tr>
<td>7</td>
<td>Tezpur University</td>
<td>Tezpur, Assam</td>
<td>1994</td>
<td>TU</td>
<td>Central Library</td>
</tr>
<tr>
<td>8</td>
<td>Tripura University</td>
<td>Agartala, Tripura</td>
<td>1987</td>
<td>TRU</td>
<td>Central Library</td>
</tr>
</tbody>
</table>

Source: https://www.ugc.ac.in/
Note: Estd. - Established
4. Methodology

The content of Central University Libraries’ websites has been evaluated. Two variables YES as 1 and NO as 0 has been categorized for scoring the data collected from the particular website of the library. Terminologies with similar features were grouped together in one place. Literature was reviewed to gain knowledge about past studies on library websites, online resources and services, use of web 2.0 tools in University Libraries. Checklist was prepared for collecting information and evaluating the web contents, online resources and services through websites of Central University Libraries of North East India. Initially a list of Central Universities of India was prepared till February 2023. The data were collected through searching and browsing the websites of respective Central University Libraries of India. For analyzing the data Microsoft Excel was used and presented in tabular form.

5. Analysis and Interpretation

5.1 Library websites of Central University Libraries of North East India

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Central University</th>
<th>Website</th>
<th>Accessibility link to University Homepage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AUS</td>
<td><a href="http://www.aus.ac.in/library/2021/04/09/hello-world/">http://www.aus.ac.in/library/2021/04/09/hello-world/</a></td>
<td>Direct link</td>
</tr>
<tr>
<td>2</td>
<td>MU</td>
<td><a href="https://mulibrary.manipuruniv.ac.in/">https://mulibrary.manipuruniv.ac.in/</a></td>
<td>Link under Library</td>
</tr>
<tr>
<td>3</td>
<td>MZU</td>
<td><a href="http://lib.mzu.edu.in/">http://lib.mzu.edu.in/</a></td>
<td>Direct link</td>
</tr>
<tr>
<td>4</td>
<td>NEHU</td>
<td><a href="https://www.nehu.ac.in/library/">https://www.nehu.ac.in/library/</a></td>
<td>Link under Library</td>
</tr>
<tr>
<td>5</td>
<td>RGU</td>
<td><a href="https://rgu.ac.in/library/">https://rgu.ac.in/library/</a></td>
<td>Link under Facility</td>
</tr>
<tr>
<td>6</td>
<td>SU</td>
<td><a href="https://library.cus.ac.in/">https://library.cus.ac.in/</a></td>
<td>Direct Link</td>
</tr>
<tr>
<td>7</td>
<td>TU</td>
<td><a href="http://www.tezu.ernet.in/Library/">http://www.tezu.ernet.in/Library/</a></td>
<td>Direct link</td>
</tr>
<tr>
<td>8</td>
<td>TRU</td>
<td><a href="https://tripurauniv.ac.in/Page/library">https://tripurauniv.ac.in/Page/library</a></td>
<td>Link under Central Library</td>
</tr>
</tbody>
</table>
From the Table 2 it is found that all (8) the Central University Libraries of North India have websites through which information is disseminated to the users. Old website was replaced with new website by AUS in 2021 to deliver information resources and services to the group of user community.

5.2 General information provided on the library webpage

Table 3: General Information on Library Webpage

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>General Information</th>
<th>Library Website</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>About us</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Contact Us</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>Gallery</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>Library Rules</td>
<td>7</td>
<td>87.5%</td>
</tr>
<tr>
<td>5</td>
<td>Library News &amp; Events</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>6</td>
<td>Library Sections</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>7</td>
<td>Library Staff</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>8</td>
<td>Location</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>9</td>
<td>Membership details</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>10</td>
<td>Visitors Count</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>11</td>
<td>Vision &amp; Mission</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>12</td>
<td>Working Hours</td>
<td>6</td>
<td>75%</td>
</tr>
</tbody>
</table>

Today every user search basic information about the library before physical visit to the library. Information provided on the website helps the users to get a clear picture of the library. Table 3 shows that 100% (8) Central University Libraries provide information about library as ‘About Us’. ‘Contact address’ is provided by 75% (6) Central University Libraries AUS, NEHU, RGU, SU, TU and TRU. ‘Gallery’ is provided by 25% (2) Central University Libraries MZU and SU. 100% (8) University libraries provide information about ‘Library rules’. Information on different ‘Library sections’ of the library is provided by AUS, MZU, NEHU, RGU and TU. RGU has not provided detail of ‘Library staff’. 87.5% (7) University libraries have given ‘Location’ of the library except RGU. ‘Membership’ information is provided by 87.5% (7) University libraries except SU. ‘Visitors count’ is provided by 62.5% (5) Universities i.e. AUS, MU, NEHU, TU and TRU. Information on ‘Vision and mission’ of the Library is provided by 50% (4) Universities i.e. NEHU, SU, TU and TRU. ‘Working Hours’ is given by 75% (6) Universities i.e. AUS, MZU, NEHU, RGU, TU and TRU.
5.3 Web based resources provided by Central University Libraries

Table 4: Web Based Resources

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Resources</th>
<th>No. of Universities</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E- Books</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>2</td>
<td>E- Journals</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>3</td>
<td>ETD</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>4</td>
<td>Government Publications Portal</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>5</td>
<td>IR</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>6</td>
<td>Online database</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>7</td>
<td>Open Access resources</td>
<td>5</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

Note: ETD- Electronic Thesis & Dissertation; IR- Institutional Repository

Web based resources provide 24/7 hours access to users anywhere anytime. Table 4 presents web resources provided by Central University Libraries of North East India. 75% (6) University Libraries provide Online Databases for users. 62.5% (5) University Libraries provide E-books, IR, & Open Access resources. 50% (4) University Libraries provide e-journals. 37.5% University Libraries provide ETD & Government publications portal.

5.4 Links to NME-ICT (National Mission on Education through Information and Communication Technology)

Table 5: Links to NME-ICT

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>NME-ICT</th>
<th>No. of Universities</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Swayam</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>2</td>
<td>NDLI</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>3</td>
<td>NPTEL</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>4</td>
<td>E-PgPathshala</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>5</td>
<td>Vidwan</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>6</td>
<td>Vidya-Mitra</td>
<td>1</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Note: NDLI- National Digital Library of Indian; NPTEL-National Programme on Education through Enhanced Learning
It is evident from Table 5 that links to NME-ICT is provided by 62.5% (5) Central University Libraries of North India *i.e.* MU, MZU, SU, TRU and TU. Swayam & NDLI link is provided in 62.5% (5) Central University Libraries of North India. 37.5% (3) provides links to NPTEL & E-PgPathshala. 50% University Libraries provides link to Vidwan. Vidya-Mitra is provided by only TU.

5.5 Participation to Library Consortium & Network

Table 6: Library Consortium & Network

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Participation</th>
<th>No. of Universities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DeLCON</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>2</td>
<td>DELNET</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>3</td>
<td>E- ShodhSindhu</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>ShodhGangotri</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>5</td>
<td>Shodhganga</td>
<td>5</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

From Table 6, it is clear that DeLCON & DELNET is provided by 37.5% (3) Central University Libraries. 50% (4) provides E-ShodhSindhu. ShodhGangotri is provided by 25% (2) University Libraries. 62.5% (5) University Libraries provide Shodhganga.

5.6 Web based Library Services

Table 7: Web based Library Services

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Web services</th>
<th>No. of University Libraries</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ask Librarian</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>CAS</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>E- Reference service</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>FAQs</td>
<td>5</td>
<td>62.5%</td>
</tr>
<tr>
<td>5</td>
<td>New Arrivals</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>6</td>
<td>News &amp; Events</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>7</td>
<td>Online Document Delivery Service</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>8</td>
<td>Web OPAC</td>
<td>7</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

Note: CAS-Current Awareness Service; FAQ- Frequently Ask Questions;

Table 7 shows Web based services provided by the Central University Libraries. 87.5% (7) University Libraries provide Web OPAC. News & Events information is provided
by 75% University Libraries. FAQs service is provided by 62.5% (5) University Libraries. 50% (4) University Libraries provide Ask Librarian & New Arrivals list. 25% (2) University Libraries provide CAS, E-Reference and Online Document Delivery Service.

5.7 Library facilities through website

Table 8: Library facilities

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Facilities</th>
<th>No. of Universities</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discovery service</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Email alert</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>Feedback</td>
<td>3</td>
<td>37.5%</td>
</tr>
<tr>
<td>4</td>
<td>QR Code</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>5</td>
<td>Quick Help</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>6</td>
<td>SMS alert</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>7</td>
<td>Subject gateways</td>
<td>2</td>
<td>25%</td>
</tr>
</tbody>
</table>

Note: QR Code- Quick Response Code; SMS-

Table 8 highlights the facilities provided by Central University Libraries of North East India. Discovery Service is provided by 50% (4) of the Central University Libraries i.e. AUS, MU, RGU and TU. 25% (2) of the Central University Libraries i.e. MZU and TU provide Email alert service. 25% (2) Central University Libraries i.e. SU, TU and TRU provide Feedback facility for users. QR code facility is provided by 25% (2) Central University Libraries i.e. AUS and TU. 25% (2) Central University Libraries i.e. AUS and MU provide Quick Help facility. SMS alert system is provided by 25% (2) Central University Libraries i.e. MZU and TU. 25% (2) Central University Libraries i.e. NEHU and SU provide Subject gateways.
5.8 Research Support Service

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Research Support</th>
<th>No. of Universities</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Citation manager</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>2</td>
<td>Grammarly</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>Plagiarism check</td>
<td>5</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

Research Support Services is provided to Research Scholars undertaking their research work. Citation manager is provided by 25% (2) Central University Libraries *i.e.* TU and TRU. For grammar and spell check *viz.* Grammarly is provided by 25% (2) Central University Libraries *i.e.* AUS and TU. 62.5% (5) Central University Libraries *i.e.* AUS, MZU, SU, TU and TRU provides Plagiarism check.

5.9 Web 2.0 tools in Central University Libraries

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Web 2.0 tools</th>
<th>No. of Universities</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blog/RSS</td>
<td>1</td>
<td>12.5%</td>
</tr>
<tr>
<td>2</td>
<td>Facebook</td>
<td>6</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>Instagram</td>
<td>2</td>
<td>25%</td>
</tr>
<tr>
<td>4</td>
<td>LinkedIn</td>
<td>1</td>
<td>12.5%</td>
</tr>
<tr>
<td>5</td>
<td>Twitter</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>6</td>
<td>YouTube</td>
<td>3</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

From the Table 10, it is seen that application of Web 2.0 tools is an emerging trend for promoting web resources and services of Central University Libraries. Blog or RSS is provided by TU. 75% (6) Central University Libraries *i.e.* provide Facebook. 25% (2) Central University Libraries *i.e.* AUS and MZU provide Instagram. LinkedIn is provided by TRU. Twitter is provided by 50% (4) Central University Libraries *i.e.* AUS, MZU, TU and TRU. 37.5% (3) Central University Libraries *i.e.* AUS, MZU and TU.
Conclusion

Use of Web based resources and services in libraries have become inevitable. Accordingly most of the University Libraries has transformed and challenged to cope up with the contemporary technological trend to remain in fray and be the abodes of information dissemination through website. Library website is a best tool for disseminating online resources and services. Access to online information has become a major thrust for user ease and convenience and saves the time of the user. From the above study it is revealed that the Central University Libraries of North East India are interested in sharing their useful content through the website for users. The web is master source of information in delivering resources and services of any library. Therefore, there must be advanced features and services to be included in the library webpage of all the Central University Libraries of North East India to provide valuable information to its users. To cope up with the advance technologies, the Central University Libraries should update, develop and maintain the library website timely.

References


