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# Structure Analysis of the National Libraries' Websites of the World

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# STRUCTURE ANALYSIS OF THE NATIONAL LIBRARIES' WEBSITES OF THE WORLD

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## **Abstract**

The present study examines various features of structure of the national libraries' websites of the world. National library of a specific subject are exempted from the study. The study evaluates all the national libraries' website, which are in English or have a comprehensive English version, on the basis of designed checklist. The checklist is drafted on the basis of published literature and guidelines. The author highlighted that most of the selected features were found missing on the sampled websites of national libraries under study. The author also recommends that structure of the website is equally important and access of uploaded information on the website highly depends on the technical structure of the website. Therefore, there is a need to improve the structure of the website on the light of the suggested suggestion under study.

**Keywords:** National Libraries, Website, Library Website, Website Evaluation, Structure Analysis

## **Introduction**

Information and Communication Technology (ICT) play a significant role in each part of human life. Recent developments in the web technologies have changed the way of information storage, retrieval and its dissemination. In the information management, web is known as a powerful medium of interaction and proved itself as an economical and easiest way of accessing and delivering of information. Website is one of the important tools of the web technology. It is collection of webpages which is written in HTML language. There are two main aspects of a website. First aspect is the technical features of the website and second one is the content of the website. Both the aspects are equally important for the success of a website. If a website has useful information content but if it does not have navigation features or the design of the website is complex and users finds it difficult to use, then they will switch over from the website. On the other hand, if a website has excellent technical features but the quality of content is poor then users will also switch over from the website. Hence, there is need to work on both aspects of a website. Both the part plays a significant role in promoting the use of a website.

In this study, following features pertaining to the structure of national libraries' websites were assessed:

- Authority of the website

- Uniform Resource Locator (URL)
- Window title
- Currency of the website
- Page layout
- Accessibility
- User friendly content writing
- Multimedia features
- Navigation and
- Multilingual

For preparing the checklist, number of related literature was studied as well as number of websites irrespective of its type were also observed to cover each and every part of the website' usability. The drafted checklist was based on number of studies which deals with website evaluation such as Pisanski and Zumer[1], Lee[2], Qutab and Khalid[3], Barry and Tedd[4], Shukla and Tripathi[5], Bednarek-Michalska[6], Public Library Website Guidelines[7], Raward[8], Novljan and Zumer[9], Nielsen[10], UNESCO[11], Berkeley[12], Bevan[13], NIC[14], Ulbikiene[15], Jasek[16], Mundle, Huie and Nirmala[17], Brower[18], Cooke[19] and etc.

### **Objectives of the Study**

The main objective of the study includes to examine various features of structure of the national libraries websites of the world on the basis of various indicators. For this, ten main checkpoints with further sub-parts have been identified. These checkpoints or indicators are also called technical features of a website which decide the usability of uploaded content on the website. They are also called non-content related attributes or the technical aspect of a website because these are common features of a website, irrespective of type of a website.

### **Scope of the Study**

There are 193 countries in the world, which are the members of United Nations. Among them, only 180 countries have a designated national library of the country. A short survey was conducted to find out the number of functional national libraries' websites in the World. Among the 180 national libraries, it was identified that only 144 national libraries had a website but at

the time of data collection only 125 national libraries' websites were functional. The present study only selected 49 websites of national libraries (appendix 1) because of extensive version of these websites exist in English. The national libraries of specific subject were excluded from the study.

## **Research Methodology**

To examine the structure of the selected national libraries' websites of the world, ten points checklist with sub-parts was drafted on the basis of published guidelines given by various authors and authorities such as Jacob Nielsen, NIC (National Informatics Centre) guidelines drafted for Indian Government websites, UNESCO guidelines etc. These guidelines are reformed on the basis of need of the study as well as features of national libraries' websites. Each checkpoint in the drafted checklist was giving two weightage i.e. one, if a specific feature is present on the website and zero, if it is not available. For example if the website of National Library of India has short URL then it got one point and if it does not have short and intuitive URL then it scored zero point. The data was collected in the month of July and August 2014.

## **Data Analysis**

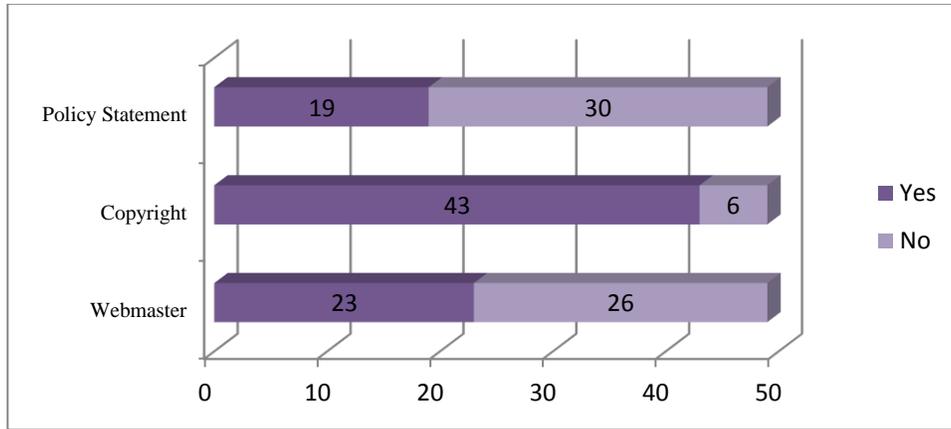
This section of the data analysis consists of ten parts with further sub-parts. The evaluation of the structure has been done on the basis of certain indicators which also analyse usability of a website. These indicators include:

### **1. Authority**

In this study, authenticity of web information is judged on the basis of the following factors:

- a) Information about webmaster,
- b) Information about copyright,
- c) Information about policy statement of the website

**Figure 1: Authority Features on the Selected National Libraries' Websites**



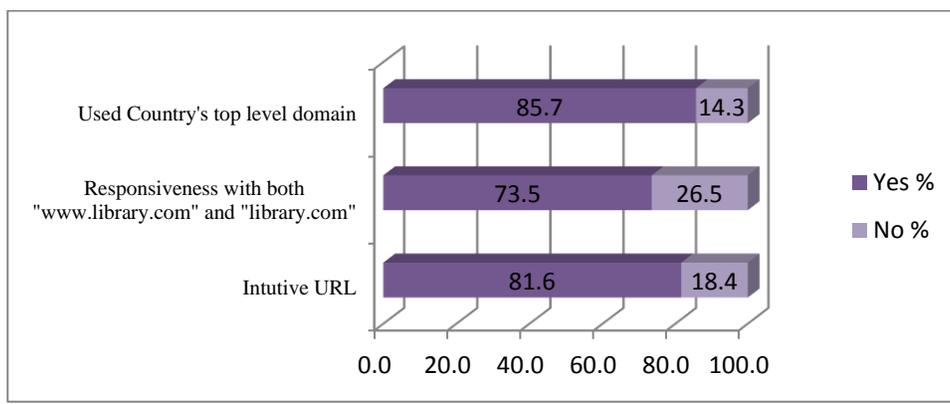
The quality of information always depends on its authenticity. Figure 1 shows that information about webmaster was uploaded only by 46.9% (23 out of 49) national libraries' websites and 53.1% (26 out of 49) national libraries missed this information on its' websites. Most of the national libraries i.e. 87.8% (43 out of 49) uploaded copyright information on the homepage of its' websites. Data analysis also reflects that 38.8% (19 out of 49) websites of national libraries also included policy statement on its' websites and 61.2% (30 out of 49) did not elaborate policy statement of the web information on its' websites.

## **2. Uniform Resource Locator (URL)**

Uniform Resource Locator commonly known as URL. It is displayed on the address bar of the website. In this study, following features of the URL of national libraries' websites were examined:

- a) Short URL
- b) Work with and without the prefix 'WWW'
- c) Use of country's top level domain.

**Figure 2: URL Features of National Libraries' Websites**

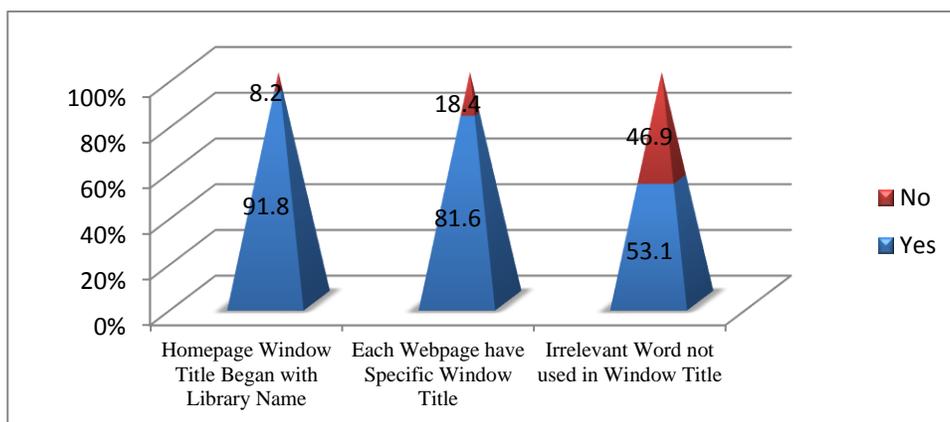


Analysis of data highlights that 81.6% (40 out of 49) national libraries' websites had short and simple URL address such as Library of Congress ([www.loc.gov](http://www.loc.gov)) and National Library of Australia ([www.nla.gov.au](http://www.nla.gov.au)). It was also found that the URL address of 18.4% (9 out of 49) national libraries' websites was lengthy for example Seychelles National Library ([www.national-library.edu.sc](http://www.national-library.edu.sc)) and Cyprus Library ([www.cypruslibrary.gov.cy](http://www.cypruslibrary.gov.cy)). Data analysis also highlights that only 73.5% (36 out of 49) URL address of national libraries' websites respond with and without the prefix of 'WWW' in the address bar of browser and 26.5% (13 out of 49) URL address of national libraries' websites only respond when prefix was added. Analysis of domain name of the websites of national libraries reveals that 85.7% (42 out of 49) national libraries used country's top level domain name in the web address of its' websites.

### 3. Window Title

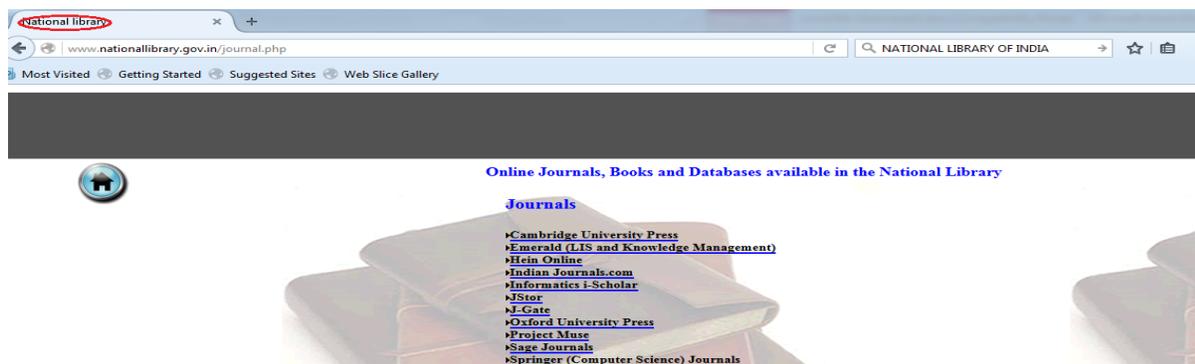
Window title of the homepage should be self-explanatory. Each webpage should have specific window title because it helps to search a specific webpage in the website. In this study, window title of the website is determined by the Title Tag of each HTML document.

**Figure 3: Features of Window Title of the Websites of National Libraries**



Data analysis reveals that 91.8% (45 out of 49) websites used name of library as window title of the homepage and 8.2% (4 out of 49) websites did not use library name as the window title of the homepage. These national libraries used some other words instead of name of the library such as National Library of Kuwait used the abbreviation of library name, National Library of Trinidad and Tobago used the word “home” and National Library of Eritrean used “Eritrean Archive”. It was also found that 81.6 % (40 out of 49) websites had specific window title for each webpage of the website and 18.4% (9 out of 49) websites did not specify window title for each webpage. Figure 4 shows that the National Library of India used the word ‘National Library’ in the window title of E-resource’ webpage. Analysis of data also shows that 46.9% (23 out of 49) national libraries used irrelevant words in the window title of the websites.

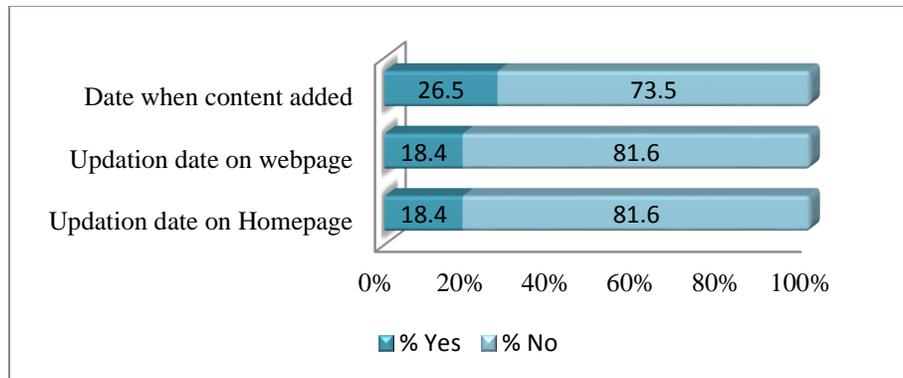
**Figure 4: Window Title of E-resources Webpage on the Website of National Library of India**



#### **4. Current Information of the Website**

Information is only significant when it is current. It guarantees the end users about latest information have been uploaded on the website. In the present study, currency of information was assessed on the basis of updation date on the homepage, each important webpage and date when content was added on the website.

**Figure 5: Currency Attributes of Websites of National Libraries**



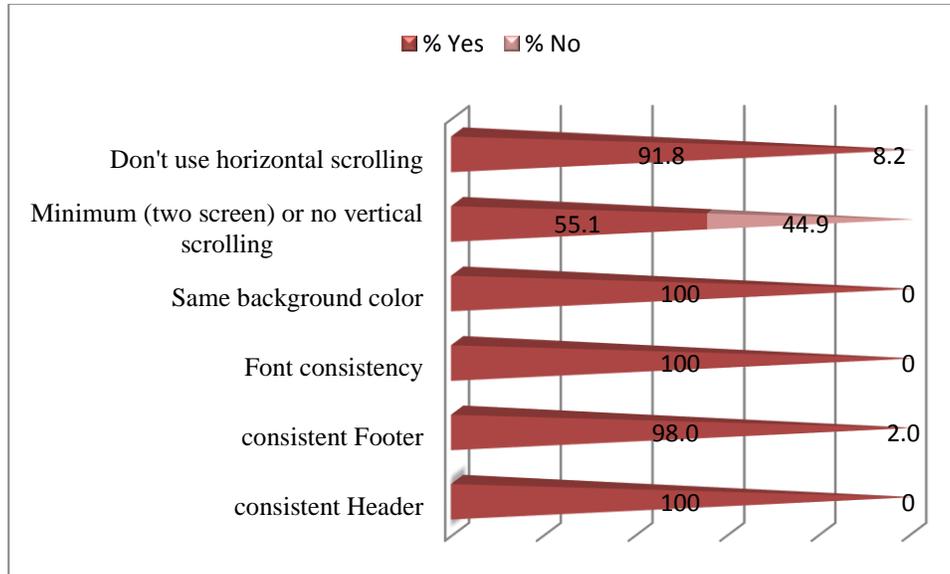
Data analysis shows that majority of national libraries did not uploaded updation date on the homepage of its' websites and only 18.4% (9 out of 49) national libraries provided last update date on subsequent webpage of its' website. Date when content was added is equally important as the updation date on the homepage. In this study, it was observed that there were few national libraries' websites which uploaded content addition date on each webpage and few national libraries used this attribute only for the latest news column of the website. In this study, only 26.5% (13 out of 49) national libraries uploaded the date when content was uploaded on its' websites.

## **5. Page Layout**

Page layout deals with the arrangement of visual elements on the website. A good page layout increases the usability of uploaded content on a website. In this study, page layout of the websites was assessed on the basis of following attributes:

- a) consistency in header
- b) consistency in footer
- c) font consistency
- d) same background colour
- e) minimum vertical scrolling and
- f) no horizontal scrolling

**Figure 6: Page Layout of Websites of National Libraries of the World**



Data analysis shows that all the national libraries' websites had consistency in header, footer, font and background colour. Important information of a website should be visible in the first screen, without scrolling as users rarely scroll beyond the first screen. In this study, it was found that 55.1 % (27 out of 49) websites used minimum vertical scrolling i.e. less than two screens and 44.9% (22 out of 49) websites used more than two screen of vertical scrolling. Horizontal scrolling always creates usability problems. Data analysis shows that 95.9% (47 out of 49) national libraries avoided use of horizontal scrolling on its' websites. Only two national libraries' websites i.e. National Library of Belize (Figure 7) and Egypt used horizontal scrolling.

**Figure 7: Horizontal Scrolling on the Website of the National Library of Belize**



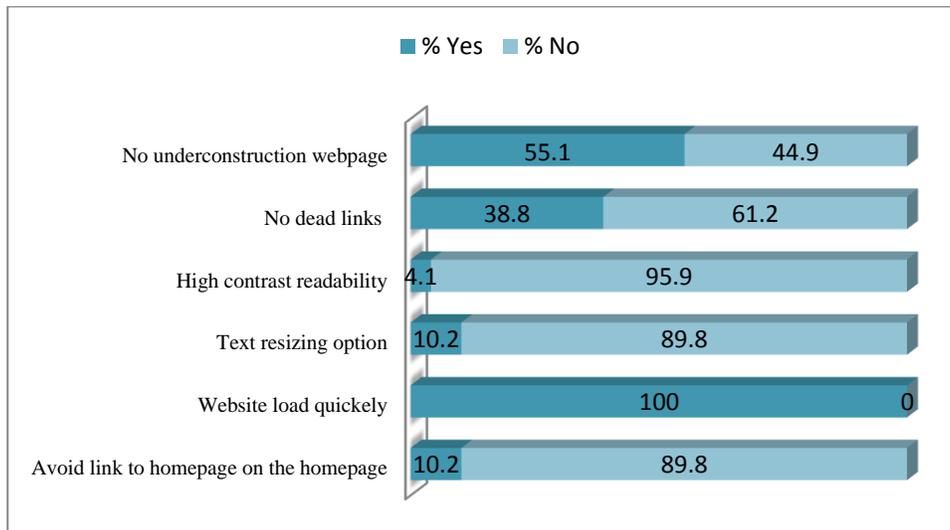
## **6. Accessibility**

A website with comprehensive content and information is not effective if it is not easily accessible. A website needs to be accessible for all categories of users. In this study, accessibility was evaluated on the basis of the following points:

- a) link to homepage on homepage avoided
- b) loading speed
- c) text resizing option
- d) option for high contrast

- e) no dead link
- f) no under construction webpage

**Figure 8: Accessibility of the Websites of National Libraries**

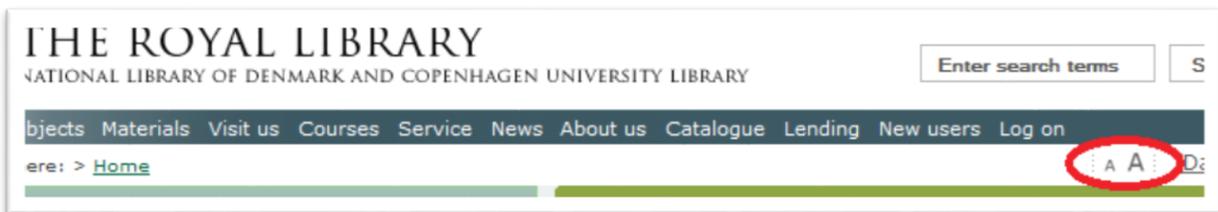


Data analysis shows that 89.8% (44 out of 49) websites national libraries provided an active link to homepage on the homepage. Loading speed of each website was tested. For this, it was observed whether a website uploaded something within eight second time or not. All the websites fully stand up on this eight second benchmark. Analysis of data shows that only 10.2% (5 out of 49) national libraries provided control in the hand of users to resize the text size. These websites of national libraries belongs to Malaysia (Figure 9), Denmark (Figure 10), Finland and Ghana. Changing contrast feature was found on two websites i.e. National Library of South Africa and Malaysia. Presence of dead links or under construction webpage spread the message of poor maintenance of a website. It can also lead the users to switch off from a website. Data analysis shows that only 38.8% (19 out of 49) websites did not have any dead and broke links on the homepage. Data analysis also shows that 44.9% (22 out of 49) websites of national libraries uploaded under construction webpages on its' websites.

**Figure 9: Text Resizing Option on the Website of National Library of Malaysia**



Figure 10: Text Resizing Option on the Website of National Library of Denmark

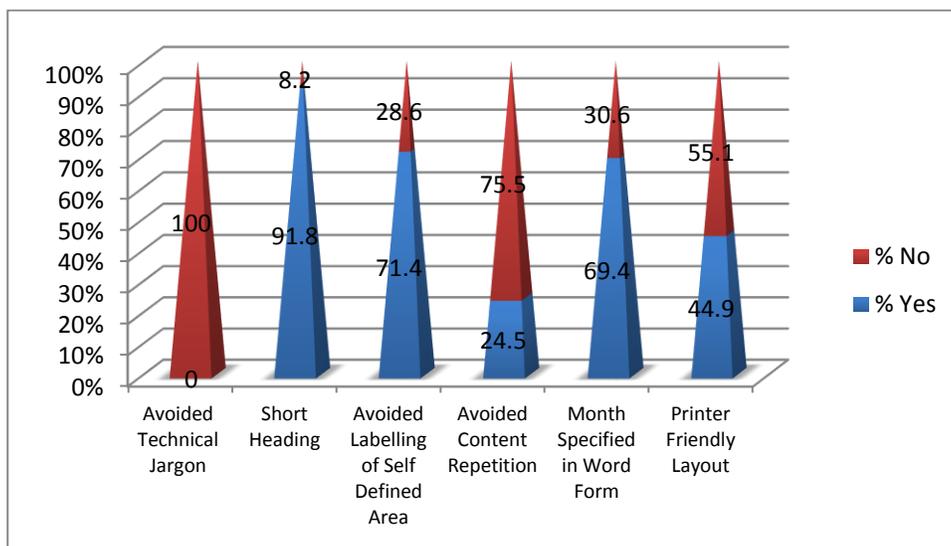


## 7. User Friendly Content Writing

Content writing is one of the most important parts of web design. Mostly users scan the content on the web, rather than read. In this study, content writing (specially of the homepage) of national libraries' websites was evaluated on the basis of following points:

- a) Avoided technical jargon
- b) Short heading
- c) Avoided labeling of self-defined area
- d) Avoided content repetition
- e) Month specified in word form
- f) Printer friendly layout

Figure 11: User Friendly Content Writing on the Websites of National Libraries



All the selected national libraries frequently used technical terms on its' websites such as OPAC, online database, digital resources, e-resources, union catalogue etc. Headings on the websites should be as concise and meaningful as possible. It was found that 91.8% (45 out of 49) national

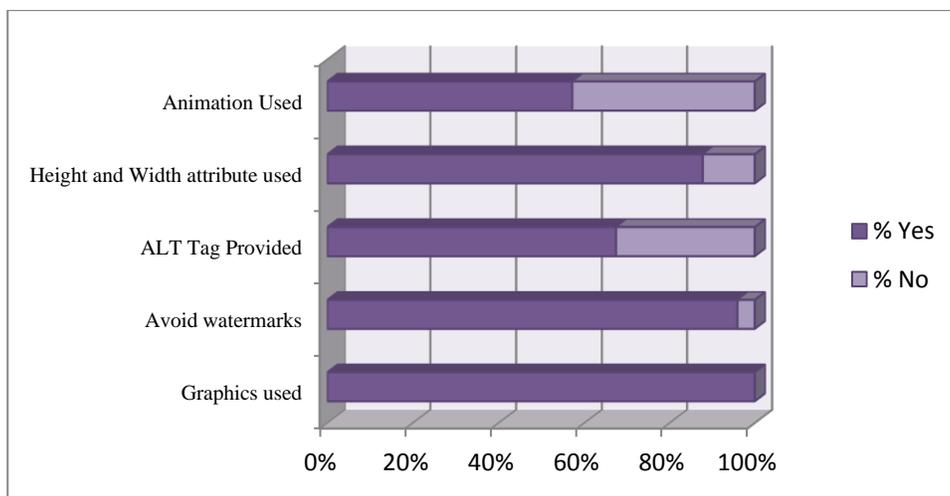
libraries' websites had brief and informative headings. Sometimes content is self-explanatory and there is no need to assign label to it. For example search box on homepage with a search/Go button indicated that website provides search facility; therefore there is no need to label it. In this study, it was observed that 28.6% (14 out of 49) websites of national libraries label the content on its' websites which was self-explanatory. Data analysis shows that 75.5% (37 out of 49) national libraries had duplication of links on the homepage of its' websites. Data analysis shows that 69.4% (34 out of 49) national libraries spell out the month in the word form on its' websites to avoid confusion between date and month. Printer friendly webpage means a webpage which has user friendly print layout. Data analysis shows that 44.9% (22 out of 49) national libraries had printer friendly layout of its websites and 55.1% (27 out of 49) national libraries did not have this facility for the users.

### 8. Use of Multimedia Features

Use of multimedia play significant role in the communication of information. It gives rich experience to users and also improves display quality of information. In this study, application of multimedia has been analysed on the basis of following points:

- a) use of graphics on the website
- b) avoid watermarks
- c) use of ALT tag
- d) use of height and width tag
- e) use of animation on website
- f) mechanism to pause animation

**Figure 12: Use of Multimedia Features on the Websites of National Libraries**



Data analysis shows that all the selected websites of national libraries used graphics in one or another form on its' websites. Height and width Tag specify space required for image and reserved it when a webpage is loaded. However, in the absence of this tag, browser does not know the size of the image, and cannot reserve the appropriate space to it. The effect will be that the webpage layout will change during loading. It also forces a browser to allocate space for images and download the text first. In the present study, only 87.8% (43 out of 49) national libraries used the height and width tag on its' websites.

Watermarks decrease visibility of text and does not add any value in the text. Majority of the national libraries under study i.e. 95.9% (47 out of 49) avoided use of watermarks on its' websites. ALT Tag provides an explanatory text description for images, graphics and other non-text elements. Analysis of data shows that 67.3% (33 out of 49) national libraries defined ALT Tag in the HTML script of its websites. Use of animation easily draws users' attention towards the key content of a website. However, web designer needs to ensure that it does not disturb users and cannot affect the accessibility of a website. Data analysis shows that only 57.1% (28 out of 49) national libraries used some sort of animation on its' websites. Data analysis also shows that only 33% (16 out of 49) national libraries provided mechanism in the hands of users to control an animation as and when required.

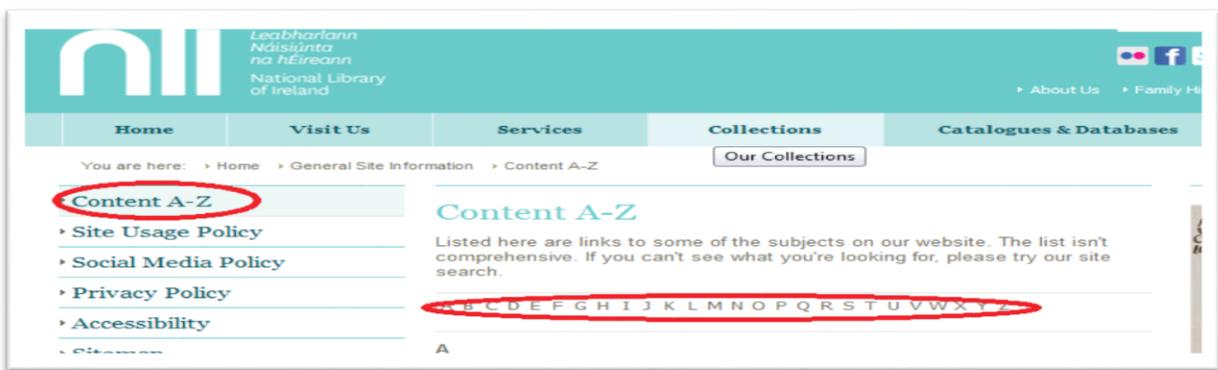
## **9. Navigation Features of the National Libraries' Websites**

Navigation is a key component of a website. It assists to access a website with minimum efforts. To examine navigation features of national libraries' websites following parameters has been assessed:

### **a) Website Index**

An A-Z index offers an alphabetical list of webpages of website through which users may browse and select a particular webpage. In a book index, the entries are followed by page numbers but on the website index, the entries are hyperlinked to the appropriate webpage. Data analysis shows that only 8.2% (4 out of 49) national libraries uploaded an alphabetical index of webpages of its websites. These national libraries belong to National Library of Australia, Ireland (Figure 14), Kazakhstan and Ethiopia.

Figure 13: Site Index on the Website of National Library of Ireland



### b) Link to Homepage on Each Webpage

Link to homepage on each webpage of website helps in the easy access of uploaded content on the website. It also helps to jump quickly from lower level webpages to homepage. In this study, 95.9% (47 out of 49) national libraries uploaded link to homepage on each webpage of its websites. Only two national libraries i.e. National Library of Ghana and Kuwait did not use link to homepage on each webpage navigation on its' websites.

### c) Path Navigation

Path navigation is generally found on the top of the webpage. It depicts various parts of a particular classification tree in which a particular document or section of a website is located. It can help users to visualise how content has been structured on the website and users can easily move from specific-to-broad or broad-to-specific information. Analysis of data highlights that only 55.1% (27 out of 49) national libraries used path navigation on its' websites.

### d) Change Visited Link Colour

Change visited link colour help to know where a user has been visited on a website. It also helps the users to avoid visit on those webpages which users have been already visited. In this study, it was found that only 18.3% (9 out of 49) national libraries have uploaded change visited navigation on its' websites.

### e) Site Map

Web users want to search information on web as easily and quickly as possible. A website map represents the structure of a website, textually as well as graphically, on a single webpage. It can provide a convenient and easy way to view the content uploaded on a website. Data analysis

shows that only 42.9% (21 out of 49) national libraries uploaded site map facility on its' websites.

#### **f) Site Search**

Site search is one of the most important elements of a website of any size beyond a few pages. It is essential that users be able to find it easily on the website and can use it effortlessly. It is the duty of webmaster to keep site search option visible, make it wide, and keep it simple. Data analysis shows that 75.5% (37 of 49) national libraries uploaded site search navigational tool on its' websites.

#### **10. Multilingual**

Multilingual means using several languages. A website with multilingual features offers uploaded information and content in two or more than two languages. In the era of globalization, multilingual websites are very essential because users of web information are not restricted to a language. In the present study, it was found that only 51% (25 out of 49) national libraries' websites were multilingual. Multilingual feature was found absent on 49% (24 out of 49) websites of national libraries.

#### **Findings of the Study**

On the basis of data analysis, the present study highlights the following findings:

- The study found that more than half of national libraries did not give importance to the authenticity on its websites and missed information about webmaster, copyright and policy statement of the web information.
- Data analysis detected that most of the selected national libraries' websites had a short URL address which worked with and without the prefix of WWW. Most of the national libraries' websites used country's top level domain name in the URL address to represent its nation in the cyber world.
- The study found that the national libraries understood the significance of window title of a website; therefore, most of the national libraries used library name in the window title of the website as well as each webpage of website has a specific window title.
- In this study, it was found that most of the national libraries did not label currency of information and missed the updation date on the homepage as well as each important

webpage of the website. Date when the content was uploaded on the website also significant but data analysis found that only few national libraries had this feature on its websites.

- Almost all the national libraries' websites had consistency in header, footer and font. They also use same background colour of all webpages. Most of the national libraries avoid the use horizontal scrolling on the websites. The study also found that half of the selected national libraries' websites use minimum (two screen) vertical scrolling and rest of the websites violated the criteria 'minimum vertical scroll'.
- The study found that the selected national libraries did not give preference to the accessibility of the website. Almost all the national libraries' websites did not avoid link to homepage on the homepage. They also did not provided text resizing as well as high contrast readability option on its websites. The presence of dead links and under construction webpages were frequently noticed on most of the national libraries' websites. The study also highlighted that almost all the national libraries frequently use technical terms on its websites and repetition of links on the homepage were common phenomena.
- The study identified that all the national libraries used some form of multimedia content on its websites and most of them defined ALT as well as height and width Tag. Almost all the national libraries avoided use of watermarks as it decrease the visibility of the content on the website.
- All the navigation tools under study were not found present any selected website of national library. Only 8.2% websites have website index, path navigation was observed on 55.1% websites, change visited link colour was found on 18.3% websites, site map was found on 42.9% websites and 75.5% national libraries' websites have site search option. In the era of globalization, multilingual website has own value. In this study, only 51% websites were found multilingual.

### **Suggestion of the Study**

To make the website more users' oriented and to enhance the usability of the uploaded content, the following suggestions are recommended:

- i. Authority brings reliability among the users towards information uploaded on the website. National libraries which did not upload authority attributes on its' websites should incorporate it as early as possible.
- ii. A website should have a simple as well as short URL address as it is easy to remember and easy to recall. National libraries' websites having lengthy URL address should modify it as early as possible.
- iii. National library is an institute of national importance. By using country's top level domain in its web address, they can represent the nation in the cyber world. Use of country's top level domain in URL address represents that an institution is a government body which create positive image of an institution.
- iv. The window title of the homepage should begin with the informative word such as name of the library to make it obvious, user-friendly and easily accessible. If the window title of the homepage starts with any redundant word then the library name gets lost in bookmark lists and search results of search engine. Each webpage should have specific window title because it helps to search a specific webpage in the website.
- v. The currency of information should be established by uploading up-dation date on the homepage as well as each important webpage of the website. National libraries should also make a part to content addition date to their websites because it also represents some form of currency of information.
- vi. National Libraries should increase accessibility of their websites so that users of all age group can easily access the uploaded information. National libraries can enhance the accessibility of the website by providing options for changing text size and contrast of the font. The functionality of links should be checked on regular intervals to remove dead links on the website. A webpage should be uploaded on the website when it is properly design and functional. A under construction webpage should not be incorporate into the website as it creates bad image about the website.
- vii. National libraries should avoid the use of technical terms on their websites. If there is a need to use a technical term on the website, it should be properly defined. For example national libraries can upload a glossary of technical terms used on the website.
- viii. Homepage is the index page of a website. Each piece of information uploaded on the website should be link with the homepage. To index maximum information with the homepage, duplication of content on the homepage should be avoided.

- ix. To save space on the homepage, labelling of self-defined areas should be avoided. For example, there is no need to label the symbols of Facebook, Twitter, and calendar etc. on the homepage of the website.
- x. To avoid confusion between dates with month, national libraries should spell out the month in word form on their websites.
- xi. Use of multimedia helps to communicate information more easily and effectively. At the same time, web designers should keep in mind that use of too many elements of multimedia on the website can affect its accessibility. Hence, it should be used in a limited number. The height and width tags help in the downloading of images. Thus, national libraries should specify these tags on their websites.
- xii. Navigation features increase the usability of the website. It helps to know where we were, where we are, and where we can go on a website. National libraries should list all available navigation features on the homepage and subsequent webpages of the website as the primary purpose of a homepage is to facilitate navigation of the website. National libraries should incorporate maximum navigational features on their websites as it facilitates easy access of information.
- xiii. Website index is a very powerful navigation tool. National libraries should add it to their websites because when users do not have any idea or keyword in mind while exploring a website, the website index will list all the available webpages in alphabetical order like a book index.
- xiv. Changing the colour of visited links is also a very significant navigation feature on a website. It overcomes confusion between visited and not visited links on a website. National libraries which did not have this navigation tool on their websites should make it a part of their website as early as possible.
- xv. National libraries' websites with more than a few webpages should use site map navigation on their websites. It shows all the uploaded information content of a website in a hierarchical order which facilitates easy access of information.
- xvi. Path information shows the present location of the user on the website. It also shows how the information is organized on a website. National libraries' websites which did not have path navigation should add it to their websites.
- xvii. The websites of national libraries should be multilingual. It helps to increase the number of visitors on the website. At least national libraries' websites should upload all information

and content on their websites in two languages i.e. one is the national language of the respective nation and another one is the most popular international language.

## Conclusion

Changing features of information resources and information needs as well as information seeking behaviour of users force the national libraries to mark their presence in the cyber world with its resources. National libraries successfully reacted on this changing environment. They designed their websites to provide online access to the information resources and services. But there is a need to analyse the presence of national libraries on the cyber world. During the analysis, it was identified that national libraries performed quite well but are a lot of scope for the improvement.

## Reference

1. Pisanski, Jan, and Zumer, Maja. (2005). "National Library Web Sites in Europe: An Analysis". *Program: Electronic Library and Information Systems* **39**(3); p.213–226.
2. Lee, K.H. (2001). "Evaluation of Academic Library Web Sites in Malaysia". *Malaysian Journal of Library and Information Science*. **5**(2); p. 95-108.
3. Qutab, Saima and Khalid, Mahmood. (2009). "Library Web Sites in Pakistan: An Analysis of Content". *Program: Electronic Library & Information Systems*. **43**(4); p. 430-445.
4. Barry, Lara and Tedd, Lucy A. (2008). "Local Studies Collections Online: An Investigation in Irish Public Libraries". *Program: Electronic Library and Information Systems*. **42**(2); p.163-186.
5. Shukla, A. and Tripathi, A. (2010). "Establishing Content Awareness Evaluation Criteria for Library Websites: a Case Study of Indian Academic Library Websites". *Annals of Library and Information Studies*. **57**; p.403–416.
6. Bednarek-Michalska, Bożena. (2002). "Evaluation of the Quality of Web-Based Library Information Services". *Biuletyn EBIB*. <<http://eprints.rclis.org/6877/>> (accessed on 21 Apr. 2015).
7. Public Library Website Guidelines. <[www.Lori.ri.gov/plstandards/websites.php](http://www.Lori.ri.gov/plstandards/websites.php)> (accessed on 14 Nov 2013).
8. Raward, Roslyn. (2001). "Academic Library Website Design Principles: Development of a Checklist". *Australian Academic and Research Libraries*. **32**(1). <<http://dx.doi.org/10.1080/00048623.2001.10755151>>. (accessed on 03 Sep 2013).

9. Novljan, Silva and Zumer, M. (2004). "Webpages of Slovenian Public Libraries: Evaluation and Guidelines". *Journal of Documentation*. **60**(1); p. 62–76.
10. Nielsen, Jakob. 113 design guidelines for homepage usability.  
<<https://www.nngroup.com/articles/113-design-guidelines-homepage-usability/>> (accessed on 21 Dec 2013).
11. UNESCO. (2005). How to create a website: Guiding Principles. New Delhi: UNESCO.
12. Berkeley, U. C. Evaluating Web Pages: Techniques to Apply & Questions to Ask.  
<<http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html>>. (accessed on 15 Dec 2013).
13. Bevan, Nigel. Guidelines and Standards for Web Usability.  
<[http://www.cs.tsu.edu/ghemri/CS117/ClassNotes/web\\_usability\\_standards.pdf](http://www.cs.tsu.edu/ghemri/CS117/ClassNotes/web_usability_standards.pdf)> (accessed on 25 Dec 2013).
14. National Informatics Centre. Guidelines for Indian Government Websites. Government of India. India.
15. Ulbikiene, Daiva. (2001). "General Guidelines for the design of a National Library's website". *First European Library Seminar, Ljubljana, June 10 - 12, 2001*.  
<[http://www.europeanlibrary.org/guidelines\\_national\\_lib\\_website.htm](http://www.europeanlibrary.org/guidelines_national_lib_website.htm)>. (accessed on 05 Jan 2015).
16. Jasek, Chris. (2004). "How to Design Library Web Sites to Maximize Usability". Library Connect: USA. <[http://www.digital.csic.es/bitstream/10261/2926/1/howtodesign\[1\].pdf](http://www.digital.csic.es/bitstream/10261/2926/1/howtodesign[1].pdf)> (accessed on 15 Jan 2014).
17. Mundle, Kavita, Huie, Harvey and Nirmala, S. (2002). "ARL Library Catalog Department Web Sites: An Evaluative Study". *LRTS* **50**(3); p. 173-185.
18. Brower, M.S. (2004). "Academic Health Sciences Library Website Navigation: An Analysis of Forty-one Websites and their Navigation Tools". *Journal of the Medical Library Association* **92**(4); p. 412-20.
19. Cooke, A. A. (2001). Guide to Finding Quality Information on the Internet: Selection and Evaluation Strategies. London: Library Association Publishing.

## Appendix -I

### National Libraries' Websites Selected for the Study

Name of the Country	Name of the Continent	Name of National Library	URL
Egypt	Africa	National Library and Archives of Egypt	<a href="http://www.darelkotob.org/">http://www.darelkotob.org/</a>
Eritrea	Africa	Research and Documentation Centre	<a href="http://www.eritreanarchives.org/">http://www.eritreanarchives.org/</a>
Ethiopia	Africa	Ethiopian National Archives and Library Agency	<a href="http://www.nala.gov.et/">http://www.nala.gov.et/</a>
Ghana	Africa	Ghana Library Authority	<a href="http://www.ghla.org.gh/">http://www.ghla.org.gh/</a>
Kenya	Africa	Kenya National Library Service	<a href="http://www.knls.ac.ke/">http://www.knls.ac.ke/</a>
Namibia	Africa	National Library of Namibia	<a href="http://www.nln.gov.na/">http://www.nln.gov.na/</a>
Seychelles	Africa	Seychelles National Library	<a href="http://www.national-library.edu.sc/">http://www.national-library.edu.sc/</a>
South Africa	Africa	National Library of South Africa	<a href="http://www.nlsa.ac.za">www.nlsa.ac.za</a>
Uganda	Africa	National Library of Uganda	<a href="http://www.nlu.go.ug/">http://www.nlu.go.ug/</a>
United Republic of Tanzania	Africa	Tanzania Library Services Board	<a href="http://www.tlsb.or.tz/">http://www.tlsb.or.tz/</a>
Belize	America	Belize National Library Service and Information System	<a href="http://www.nlsbze.bz/">http://www.nlsbze.bz/</a>
Canada	America	Library and Archives Canada	<a href="http://www.bac-lac.gc.ca/">http://www.bac-lac.gc.ca/</a>
Dominica	America	Dominica Library Service	<a href="http://www.dlis.gov.dm/">http://www.dlis.gov.dm/</a>
Jamaica	America	National Library of Jamaica	<a href="http://www.nlj.org.jm/">http://www.nlj.org.jm/</a>
Trinidad and Tobago	America	National Library and Information System Authority of Trinidad and Tobago	<a href="http://www.nalis.gov.tt/">http://www.nalis.gov.tt/</a>
United States of America	America	Library of Congress	<a href="http://www.loc.gov">www.loc.gov</a>
Bangladesh	Asia	National Archives and National Library of Bangladesh	<a href="http://www.nanl.gov.bd/">www.nanl.gov.bd/</a>
Bhutan	Asia	National Library of Bhutan	<a href="http://www.library.gov.bt/">http://www.library.gov.bt/</a>
China	Asia	National Library of China	<a href="http://www.nlc.gov.cn/">http://www.nlc.gov.cn/</a>
Georgia	Asia	The National Parliamentary Library of Georgia	<a href="http://www.nplg.gov.ge/">http://www.nplg.gov.ge/</a>
India	Asia	The National Library, India	<a href="http://www.nationallibrary.gov.in/">http://www.nationallibrary.gov.in/</a>
Iraq	Asia	Iraqi National Library and Archives	<a href="http://www.iraqnla.org">http://www.iraqnla.org</a>
Israel	Asia	The National Library of Israel	<a href="http://jnul.huji.ac.il">http://jnul.huji.ac.il</a>
Japan	Asia	National Diet Library	<a href="http://www.ndl.go.jp/">http://www.ndl.go.jp/</a>
Jordan	Asia	Department of National Library	<a href="http://www.nl.gov.jo">http://www.nl.gov.jo</a>
Kazakhstan	Asia	National Library of Kazakhstan	<a href="http://www.nlrk.kz/page.php">http://www.nlrk.kz/page.php</a>
Kuwait	Asia	National Library of Kuwait	<a href="http://www.nlk.gov.kw">http://www.nlk.gov.kw</a>
Lao People's Democratic Republic (Laos)	Asia	National Library of Laos	<a href="http://www.nationallibraryoflaos.org/">http://www.nationallibraryoflaos.org/</a>
Malaysia	Asia	National Library of Malaysia	<a href="http://www.pnm.gov.my">http://www.pnm.gov.my</a>
Maldives	Asia	National Library of the Maldives	<a href="http://www.nationallibraryofmaldives.com/">http://www.nationallibraryofmaldives.com/</a>

Myanmar	Asia	National Library of Myanmar	<a href="http://www.nlm.gov.mm/">http://www.nlm.gov.mm/</a>
Nepal	Asia	Nepal National Library	<a href="http://www.nnl.gov.np/">http://www.nnl.gov.np/</a>
Pakistan	Asia	National Library of Pakistan	<a href="http://www.nlp.gov.pk/">http://www.nlp.gov.pk/</a>
Philippines	Asia	National Library of the Philippines	<a href="http://web.nlp.gov.ph">web.nlp.gov.ph</a>
Qatar	Asia	Qatar National Library	<a href="http://www.qnl.qa/">http://www.qnl.qa/</a>
Singapore	Asia	National Library, Singapore	<a href="http://www.nl.sg/">http://www.nl.sg/</a>
Cyprus	Europe	Cyprus Library	<a href="http://www.cypruslibrary.gov.cy/">http://www.cypruslibrary.gov.cy/</a>
Czech Republic	Europe	National Library of the Czech Republic	<a href="http://www.nkp.cz/">http://www.nkp.cz/</a>
Denmark	Europe	The Royal Library: The National Library of Denmark and Copenhagen University Library	<a href="http://www.kb.dk/">http://www.kb.dk/</a>
Finland	Europe	The National Library of Finland	<a href="http://www.kansalliskirjasto.fi/">http://www.kansalliskirjasto.fi/</a>
Ireland	Europe	National Library of Ireland	<a href="http://www.nli.ie/">http://www.nli.ie/</a>
Latvia	Europe	National Library of Latvia	<a href="http://www.lnb.lv">http://www.lnb.lv</a>
Portugal	Europe	National Library of Portugal	<a href="http://www.bn.pt/">http://www.bn.pt/</a>
Switzerland	Europe	Swiss National Library	<a href="http://www.nb.admin.ch/">http://www.nb.admin.ch/</a>
The former Yugoslav Republic of Macedonia	Europe	National and University Library (NUL) "Ss. Kliment Ohridski "	<a href="http://www.nubsk.edu.mk">http://www.nubsk.edu.mk</a>
Ukraine	Europe	The Vernadsky National Library of Ukraine	<a href="http://www.nbu.gov.ua/">http://www.nbu.gov.ua/</a>
United Kingdom	Europe	The British Library	<a href="http://www.bl.uk/">http://www.bl.uk/</a>
Australia	Oceania	National Library of Australia	<a href="http://www.nla.gov.au/">http://www.nla.gov.au/</a>
New Zealand	Oceania	National Library of New Zealand	<a href="http://www.natlib.govt.nz/">http://www.natlib.govt.nz/</a>