THE EVALUATION OF NATIONAL LIBRARY OF NIGERIA, UGANDA AND NAMIBIA LIBRARY’S WEBSITES USING HEURISTIC PRINCIPLES

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Abstract  
This work tried to evaluate three National Library Websites from three different African countries which includes; National library of Nigeria website, National library of Uganda website and National library of Namibia website, using the ten heuristic evaluation criteria suggested by Danino. This study tried to look at other evaluation criteria as evaluated by other researchers. The research design that was adopted for this study is the descriptive research design. Method of data collection was through observation, instrument for data collection is heuristic checklist, findings showed that the library websites were adequately designed and contained all the relevant information although one of the website appeared more organized and quick linking than the others the architecture to this websites will help the visitors to the site to navigate the web easily and be able to access and retrieve information as at when due.

Keywords: Websites, Evaluation Checklist, National Library Websites, Library Websites, Websites-National Libraries.

Introduction  
Information exists for the sole purpose of satisfying its users and all the activities and totality of its functions is geared towards this purpose. The achievement of this purpose is measured in the effectiveness and usability of its information services. The National library as a golden gate for unlimited Nations Information richness and Cultural Heritage is highly expected towards quick and readily accessible Information of all kinds (Mohamadesmaeil & Koohbanani, 2012). In this information technology era, Libraries are facing many challenges because the new technologies and current trends have immensely influenced the user perceptions, expectations and requirements towards Information. The manual library routine gets so tedious daily due to its slow pace in making Information readily available and accessible which actually deteriorates the jet age attraction to library. It then becomes important for the libraries (National) in particular to rethink their mission and policies to provide a way for retrieving and exploring the information through websites. A website can be described as the collection of related pages which may include multimedia content, identified with a common domain name which is published in a common server or site. A website has many functions and can be used in various ways. A website can be designed for a particular group of people, organizations or NGOs but the common thing is that what will be contained in the website must be related issues meant for that particular purpose, which either could be for education or entertainment. The public websites are accessed through the internet while that of the company is done through intranet. Website can be divided into two categories and there are static and interactive website. In a nut shell, an interactive website is the website that allow visitors or users to interact with the system or the owner of the website, example of the interactive website is web 2.0 mostly used in the library. While the static website is the site where information is captured but do not allow the user to edit or delete anything hence denying the visitors of the website the opportunity to interact Elsevier Library Connect (2003). The National library has the role of collecting, maintaining and preserving intellectual resources, all the nations literally output for forthcoming generation, promotion of education, culture and research, National
libraries should make accessible and available this Nations intellectual works for worldwide use(Khan, 2017).

Information Technology not only has a revolutionary impact on the life of library due to the current trends of rapid advancement but also plays an important role in linking processes. Linking and co-operation on International level has become an important factor for National libraries, without which they could have hardly followed trends of development. The National libraries as that type of library which represents knowledge, Culture and Heritage of a Nation has the responsibility to produce a National bibliography, organize the administration of other libraries of the country and promote collaboration by coordinating a research and development of latest library services.

With libraries shifting their roles from being custodians of collection-based traditional information resources to being providers of access-based digital information resources, the library websites have gained relevance. National libraries have to disseminate and facilitate access to numerous information to their users through their websites and National libraries need to maintain their website with a wide range of information, being consistent with their wide range of activities because they represent their country’s literary richness and serves a larger population as compared to other types of libraries. The information explosion has challenged the role of the library for providing information just in the four walls of a building called the library and the librarians lured into redefining the library to meet the standard of the 21st century library where users can access information without coming into the library building. This is made possible by having a library web presence “setting up a library website” and having users make enjoyable and easy virtual visits to the library via the website.

Statement of problem

Over the years, libraries have witnessed changes that is championed by technologies. The evolution of information communication technology have made the world a global village and turned into information explosive world. These changes have lead most libraries to become web presence which grant users access to the services and resources stocked in the library through virtual visits. Researches has been carried out by different authors to look at different aspect of the library website ranging from the usability, content, statistics e. t. c, but none has actually used the heuristic evaluation criteria which is simultaneous in nature to evaluate the three National Libraries selected for this study, therefore there is a gap in knowledge and it is against this background that the researcher is embarking on this study to evaluate this website, based on the ten criteria of heuristic evaluation.

The Objectives of this study are as follows

The purpose of the study is to evaluate the selected National Library websites based on the ten Heuristic evaluation criteria, and the study is specifically set out to:

1. To evaluate the National Libraries visibility.
2. Determine its navigable effects in promoting of research, national literature, heritage and services.
3. To ascertain the current status of National libraries websites using Heuristic analysis criteria.

Scope of the study

The study covers the evaluation of three selected National libraries websites which includes; National library of Nigeria (nln.gov.ng), National library of Uganda (nlu.go.ug) and National library of Namibia (nl.n.gov.na) websites.

The study will be based on the ten heuristic evaluation criteria.

Literature review

Literatures related to this study was done to find out previous works that has been done on the library website evaluation. It is no longer news that there has been changes in the method of information dissemination since the era of Information Technology. The changing roles of National libraries have to meet the requirement of distant users. The National libraries have a great chance to contribute more valuable information through their websites for retrieval and access now that the World Wide Web (www) has become a global Information tool.

The evaluation of library website is worthy judgment by its utility with several of the component element on the webpage that enhance browsing, navigation, search locations to get desired information. Website evaluation, is the assessment of the worth and values of the site to its users, it is a measure of what is available against user’s expectations. According to (Yates, 2005, McGillis and Toms, 2001) website evaluation is a means of testing the services of the site against its effectiveness and efficiency. Visibility and matching the
system with the real world situation are the real determinant to examine difficulty and means of evaluating the webpage (Yates, 2005; McGillis and Toms, 2001). Navigation and Consistency of the website are essential if the library want to maintain the role of its service provision to its clientele on time and at its fastest possible time (George, 2005). A very good suggestion that was made by McGillis and Toms (2001) on the usability study that will enhance the site performance is to minimize the number of text and increase link sources which is very vital since users do not wish to spend their limited time in reading. The basic function of the library webpage is to make some links closer to the website as well as rename and recognize certain tag names that will be understood by the users, and not just technical jargons that will be understood by only the professional librarians. The growing need for libraries today according to Khan, (2017) is to explore new tools and ideas for delivering reference and information services. However, the latest studies as well as the authors’ conclusion showed that the trends of national library services are moving towards web-based, internet services and online databases. Mohammed, Garba, & Umar, (2010) studied the contents of National library website in Asia: An analysis without looking at its visibility while Mohamadesmaeil & Koohbanani, (2012), looked at the web usability evaluation of Iran National library website. Researchers are yet to evaluate all there is in this National library; from the visitors or uses point of view by trying out or visiting this websites to view how visible, navigable or easy it is to find information required from this websites by its users. Although Poll, (2007) interestingly gave out the statistic and quality measures involved in evaluating a library website alongside the step by step guide article by Danino, (2001) on Heuristic Evaluation which formed the bases or criteria of this evaluation. No work on the National library evaluation as regards to the ten steps of heuristic criteria has ever been carried out and this paper gives an informative preview of National library website evaluation in three sub-Saharan African Countries; Nigeria, Namibia and Ugandan and this would help in further research on related topic. From the literatures that has been reviewed on the National library website evaluation, it can be deduced that library websites is now being used by some National libraries around the world to present the library, stock and services globally.

Research Method
Descriptive survey research design was adopted for the study. A checklist based on the ten heuristic criteria was developed for data collection. For the purpose of this study, three National library websites was evaluated using observation method based on heuristic evaluation checklist. The instrument for data collection, was built, based on the heuristic evaluation checklist that was used to evaluate ten elements that should be contained in the library website that was prepared by (Danino, 2001). The websites of these libraries were visited by the researcher to ascertain the criteria as given by Heuristic. All the selected websites were carefully scanned and analysed based on the checklist at various times during the evaluation. These National Libraries are National Library of Nigeria (nln.gov.ng), National Library of Uganda (nlu.go.ug) and National Library of Namibia (nl.gov.na).

Data presentation and analysis
This study evaluates the website in ten areas: visibility of systems status, match between system and the real world (Metaphor), users control and freedom (Navigation), consistency and standards (consistency), error prevention (prevention), recognition rather recall (Memory), flexibility and efficiency of use (Efficiency), aesthetic and minimalist design (Design), help users recognize, diagnose, and recover from errors (Recovery), and help and documentation (Help).

<table>
<thead>
<tr>
<th>Heuristic principles</th>
<th>NLN(Nig.)</th>
<th>NLU(Uganda)</th>
<th>NLN (Namibia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Visibility of System Status</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>2 Match Between the System and the Real</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>World</td>
<td></td>
<td></td>
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<tr>
<td>3 User Control and Freedom</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>4 Consistency and Standards</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>5 Error Prevention</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>6 Recognition Rather than Recall</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7 Flexibility and Ease of Use</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
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Table 1: Heuristic Evaluation
Discussion of findings

Visibility of system status (feedback)
National Library website of Nigeria and Uganda has maximum visibility of system status which is the feedback massage after a library user has filled all the necessary information provided in a form, the researcher was able to notice this when a click on the Ask a Librarian was made in National Library of Nigerian website and a form for sending an email was opened, after filling the form alongside with a code presented, a feedback notification appeared immediately on the page “my email has been successfully sent and will be responded to. “In the Ugandan Library website, when the researcher queue in a query, it gave a feedback of no result and gave a guide on how best to make the search to get results e.g. use of OR i.e. Boolean search technique but on conducting the same search in Namibia website, by a click on the Ask Us, the researcher got no response to the click and even from the clicks made to other subsequent links that follows. In Namibia website, one gets ignored clicks rather than feedback on some links. The Namibia National Library Have provision for registration of users, but the Registration Form is inaccessible.

Match between system and the real world (Metaphor)
The library webpages was designed with the general language that any international scholar can use and that is the English language. They put upcoming events in the library websites just to ensure that the users are at home with the activities in the library, only the National library of Namibia and Uganda website gave the opening hours from Monday to Fridays on their page. For example, there is an information on the library website Uganda that “KOHA available Mon-Fri. 9am – 5pm only. This library webpage matches the real world because it follows real-world conversation. The most recent event and past events appears on the home pages of the websites.

User control and freedom (Navigation)
In the three library website under study, the moment you open the library website, a lot of information that will aid the user to move or click on the exact place he or she wants to go to without much difficulty is arranged everywhere on the page. Also on the top menu bar of the page, left hand side, right hand side, you will see so many information that will lead you to the materials or services you may need. This is in conformity with the heuristic evaluation criteria which suggested that a good library website should be navigable.

Consistency and standards (Consistency)
There is consistency in what they are doing. The Nigeria and Namibia library page has the information of “ASK US” and “ASK A LIBRARIAN” which according to Poll, 2007, represents a good link for users. Some jargons where used in the Nigerian website though where in their department- at the professional services- the researcher got confused with what some of the abbreviations stands for until a click was made on each of the acronym to broaden the information and find out. Some users may not have such patient in going this links which may actually bear the information they may be looking for. A lot words used in this three websites were in uniformity in all the places they appeared on the web to avoid users from getting confused due to their inconsistency in the use of different words for an item. There is consistency in the way the website is developed and designed. Even their announcement on upcoming events are also consistent. The user do not need to struggle in order to identify where he /she is on the webpage.

Error prevention (Prevention)
The three library website under review has an error prevention method. The registration form that is filled online, they make use of natural language rather than code to alert their users rather than a code, although code use was experienced at Namibia website at some point when the research kept clicking on the Vacancy link on the home page. For example, in the Uganda library website search, it notifies of incorrect key word and even give you clue on how to make a better search for results.
Recognition rather than recall (Memory)
The three website under study have this recognition rather than recall criteria. At every page of the library website, there is full information for the user to follow and get what is needed. Although the researcher did not see where it was stated to remind me, but when the user is on the website, he must not cram what is written in the previous page to be able to function on the present page, so there is this recognition rather than recall, because these libraries can be accessed remotely without physical presences of the user. The information on where you are on the web and where next you may go are clearly written and are very visible.

Flexibility and efficiency of use (Efficiency)
There is efficiency and flexibility while using these three library website. Nigerian and Uganda website navigation and flexibility looks more alike than the Namibia. Namibia library website links you to other resources in other libraries in Namibia and even to National library of South Africa. Nigeria National library website acts similar like Amazon website when you are searching through it by keeping tracks of your previous searching so that you can easily chose from any of these searches when next you visit the website and there is also the presence of quick link dialog box on their website that will enable the experience user to work effectively and faster and it can also help the inexperienced user to work also with the help of the quick link provided. This means that less time is spent in the information retrieval and the navigation rate is also efficient.

Aesthetic and Minimalist design
These library websites depicts a good work of website designer, these websites were well designed because, and the website were designed to accommodate so many users at the same time. There are pop-up messages that comes up each time a task is completed (Nigeria and Uganda) in order to notify the user or visitor on what action to take next or to assure the users of the successful completion of the task done. It was unfortunate the researcher could not get anything from the search repository present in National library of Nigeria website. The researcher was met with “sorry, we couldn’t get content from your search query the whole time it was tried, these website also make use of FAQ. The Namibia National library website immediately directs its users to Google where all the information related to their search query are kept, which they tag-National Library of Namibia- Document Delivery and you can search the Ugandan National Library website using keywords and Boolean techniques for better results. These three website poses a good Aesthetic and Minimalist in its design and not clustered or jam parked with unnecessary information at the wrong places.

Help users recognize, diagnose, and recover from error (recovery)
The three National library websites have excellent error messages that prevent a user to submit a wrong information to the site. The error messages where in plain languages and some suggestions made by the website to prevent then, except for the Namibian website which rather kept mute when some of this errors occur and uses jargons instead of natural language at some point.

Help and documentation (help)
The library webpage has a good link of “Ask a Librarian and Contact Us” that is located at a strategic point and very visible. They have links and contacts that will make your visit to the site enjoyable as it is very easy for you to access and retrieve any information that you are seeking for. This is in line with the heuristic evaluation suggestion saying there should be “ASK US” at each major home tab. To ask further questions or contact us in Nigeria and Uganda National library website, you will have to fill a form which grants an email in response of your query. The Namibian websites only provides you with contact address of where to send your query but not a form and its “ASK US” link is dormant. Besides these minor differences, these libraries have adequate contact us or ask a librarian that will help the user at all times.

Summary of findings
Based on the presentation of data, it was found out that out of the ten heuristic evaluation criteria that was used as the objective of this study, that the three National library websites visited or evaluated, were in conformity with what a good website should be except for some minor differences and unresponsive links, minimal information and links witnessed at some stages in the checklist from few websites. All the necessary guides and services to render a good service to the virtual visitors were present only that few lack appropriate information expected to be found in the link and some clicks to the links appear irresponsible as in the case of News and Events, Vacancies, Ask Us and Reports in the Namibia National library website home page.
Apart from the non-active clicks, the website visibility, status feedback, metaphor, Navigation, Consistency, Error prevention, Memory, Efficiency, Aesthetic design, Recovery and Help are good and should be able to render the visitors services needed at any point in time they visit the library webpage. If the researcher were to choose between these National Library websites, she would go with the Namibian National Library website because searching through their electronic resources, gives you links or directs you to other databases and resources in other libraries just like heuristic states that it’s better to make more use of links than documents for the website to work better. When a National library website is more attractive and informative, it can easily capture the attention of library users and web surfers.

**Conclusion**

This paper gives an informative preview of the visibility and design of National Library Websites in Nigeria, Uganda and Namibia. Although the National libraries have web presence and varying levels of services, there are some scopes for improvement in the websites. An efficient, effective library website should be well endowed and go in conformity with the ten heuristic evaluation criteria. It is very important to put into consideration the special needs competences and behaviours of the individual library’s population when designing a library website, so as to be able to create a stress free, queue free, flexible, effective and efficient library website. In as much as the researcher may have chosen National Library of Namibia to the two other library’s websites studied, all the three websites needs improvement to stand out as a well-designed National library website.

**Recommendation**

**The following suggestions have been made on bases of analysis**

- The design of the website should appeal the universal audience, as well as for handicapped end users, there should be a provision for multilingual translation to facilitate the national and international users to retrieve.
- The library websites especially nln.gov.ng and nlu.go.ug should make use of links to other libraries websites or other materials online which can direct a user to useful materials elsewhere even in Google, Google scholar etc.
- The homepage should guide quickly to frequently requested information and downloading speed should be maintained or increased accordingly. It should serve as an efficient sign-posting to the services of the library on the website.
- User friendly terminology should be used at all times. Since use of jargons i.e. terms related to a particular profession has been noted to cause confusion to users or virtual visitors, why use it? Use of jargons must be eliminated and consistency should be maintained in the terms used to avoid hidden of essential information from the users under these jargons. Library terms that cannot be avoided should be explained.
- The purpose of the National Library should be clear and very reflective through their website. All the vital roles expected of a National library should not be found wanting or in lack in its website. The website should contain a considerable amount of any information that gives a true reflection of what that very library stands for, thereby, a user will visit that very website and leave the site very satisfied.
- Social media such as blog, Facebook, Skype, twitter, etc. should be present and linked properly on the websites. With such linking, information in the various social media relating or relevant to the user’s virtual search can be delivered on any search. It is also important to state what is searched when a user clicks on the “search”.
- The websites should be developed, organized and maintained by the web professional experts. This will enhance the functionality of the very website at all times because the expert will be sure to update to currents information and trends contained and relevant to the library in its website, properly.
- Proper organization of Navigation and links of the contents on the website is a must for a library website to better represent the library and its orderliness as well as limit user confusion.
- The graphics, colour combination, textual design of the website must be attractive and eye catching for all type of users from all over the world. The eye eats first before the mouth. A good colour combination attracts more users.
- There should be presence of emergency exit on every page, to give users a sense of belonging knowing they can opt out at any time. Help button have to be integrated to any part of the site to reduce the feeling of assistance being too far by the users or visitors of the library website.
References

Screenshots showing the About Us view of the three different National Libraries website.