

EVALUATION OF SELECTED UNIVERSITY LIBRARY'S WEBSITES IN SUB-SAHARA AFRICA USING HEURISTIC EVALUATION CRITERIA

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ABSTRACT

This study evaluated university library websites selected from five countries in Sub-Saharan Africa. Descriptive survey research design was adopted for the study. The population for the study consists of five university library websites selected from five countries in Sub-Saharan Africa. These university libraries are Balme university library Ghana, University of Pretoria South Africa, Prof. Festus Aghagbo Nwako Library website in Nigeria, Sokoine National Agricultural Library in Tanzania, and Kenyatta University Kenya. The heuristic evaluation checklist was used to evaluate ten elements that should be contained in the library website as prepared by Hennepin Country Library Website. The websites of these university libraries in Sub-Saharan African countries were visited online by the researchers to evaluate their library website using Heuristic evaluation criterion. The results of the study showed that all the five university library websites under study were in full conformity with what an ideal website should contain. In other words, they all meet the standard as portrayed by ten heuristic evaluation criteria.

Introduction

Library as a warehouse of knowledge is no longer news, obtaining current and reliable information is central to economic, political and social well-being of every individual which is prerequisite

to function effectively in the global world. For the fact that libraries will remain the major source of information for centuries, they hold a special place in the mind of people when it comes to sourcing for information (Brower, 2004).

The information explosion has challenged the role of library for providing information just in the four walls of a building called the library, the librarians have been lured into redefining the library to meet the standard of the 21st century library where users can access information without coming into the physical library building, and this is made possible with the introduction of Information and Communication Technologies (ICT) into the library to help ease the librarians work/job. Brower is of the opinion that the information and communication technology has helped to reduce the distinction between the physical library collection and the information stored beyond its walls. The information explosion has brought about the increase in electronic resources that presents itself as the new platform of information dissemination, in order to publicize this platform, the libraries needs promotion rather than notification. Library websites serves as the medium of promoting the library thereby making the library resources to be visible and accessible (Vasishta, 2013). Vasishta further posited that the library website has become the major channel of communication and information dissemination between the library staff and the clientele that visit the library, the library home page is regarded as the starting point for scholars and researchers. It therefore becomes imperative for academic library to be web presence through its library website in order to accomplish its goals and objectives.

A website is 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 (Hinson, Madichie, & Ibrahim, 2012). A website can be designed for a particular group of people, organizations or NGOs but the common thing is that the website must be a related issues meant for that particular purpose, which either could be for education or entertainment (Zins, 2007). 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 they are static and interactive website. In a nutshell, 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 (Pant, 2015), 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). This will take us to look at the library website as it is the main focus of this creative output.

A library website according to Vasishta (2013) is set up to promote the library and to enhance the visibility of the library. It is obvious that a library can only be useful when it is visible and accessible to the general public. Library website as further observed by Vasishta is an avenue for promoting and creating awareness about electronic resources in the library, it also serves as electronic billboard for the publicity of the resources and increase visibility that will enhance access. Chao (2002) pointed out

that the library website has become one of the academic library medium of communication between the library and its clientele, while the homepage has become the focal point of sourcing information for research purpose with the available resources or collections in the library. The fact is that the contemporary users are informed about the library holdings without visiting the library personally, it is therefore pertinent for every academic library to be web presence in the form of library website in order to fulfil their mission and vision. If the webpage is properly designed, it will lead users to wealth of information, because library homepage especially the academic library serves as a portal to services and resources offered by the library (Bothma, Cosijn, Fourie & Penzhorn, 2014).

An academic library website is the assembling of specific and the explanation of information for a particular user which could be presented as text, audio and video materials, database, graphic, links and in any other form of information presentation and dissemination (Bothma, Cosijn, Fourie & Penzhorn, 2014). According to Hinson, Madichie, & Ibrahim (2012), academic library website portrays its virtual public face, acting as a pointer to the collections, services, and to some extent its staff. It is very necessary to note that users now prefer to visit the library website more often than they visit the physical library (Connell, 2008). The academic library play significant role such as workstation for the users and the librarians by allowing the resources available to be searched electronically, it

may also be in the form of digitized in-house databases. As the academic library website serve as the gateway to resources and services of the library, it is paramount to design it in such a way that it will be easy for visitors to navigate without much difficulties. Library website has been seen as the proactive and service-oriented channel for the distribution of electronic information thereby giving access to bibliographic journals. It will be much easier for the visitor to the website to access journals when the library website is designed on a single platform. In a situation where there is no functional website, the electronic resources in the library will be underutilized due to invisibility. As the advancement of information technology has made it possible for almost all the academic libraries to be visible through their library webpage, it will be necessary to actually look at the bases on which the website is created actually and will be done through website evaluation.

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 (McGillis & Toms, 2001) website evaluation is a means of testing the services of the site against its effectiveness and efficiency. Evaluation of library website is worthy judgement by its utility with several of the component element on the webpage that enhance browsing, navigation, search locations to get desired information. The heuristic evaluation criterion is one of the major standards used in evaluating website. Heuristic evaluation criteria covers; the visibility of the system status

of the library website; matching the real world situation with the system or webpage; how easy it is for the visitors to navigate within the website, platform convention; how errors can be prevented on the website; recognition rather than recall; flexible and efficiency of use; aesthetic and minimalist design; help user recognize, diagnose, recover from errors; and helped and documentation process, exist within the webpage in terms of their structure and content (Stubbs, n. d.). Visibility and matching the system with the real world situation are the real determinant to examine difficulty and means of evaluating the webpage (McGillis & Toms, 2001). Navigation and Consistency of the website are essential if the library want to maintain the role of its services provision to its clientele on time and 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 are 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 misunderstood by user and understood only by the professional librarians.

From the foregoing, it can be deduces that a library website is used by the academic libraries now around the world to present the library's stocks and services globally. It is also an avenue to

make most of the library resources available and accessible remotely, it is easier for users now to be in their comfort zone and access the library resources wherever they are, provided they have the URL address that can link them up to the library, physical visit to the library will be minimized because the library is web presence. The library webpage has help to make the world of information to be global because you can stay in your home country and access the library resources in another country.

Statement of the Problem

Years back, libraries has witnessed changes that are championed by technologies. These changes have lead most of the academic libraries to be web presence which grant users access to the services and resources in the library. Researches have been carried out by different authors to look at different aspect of the library website ranging from the content, usability but according to the researcher best of knowledge, none has actually used the heuristic evaluation criterion which is holistic in nature to evaluate academic library websites. It is against this backdrop that the researchers are embarking on this study to evaluate selected university library's website in Sub-Sahara Africa using heuristic evaluation criteria.

The Purpose of the Study

The purpose of the study is to evaluate selected university's library websites in Sub-Sahara Africa based on the ten Heuristic evaluation criteria, and the study is specifically set out to:

1. Find out the visibility of the library website.
2. Determine if the library website is navigable.
3. Determine if the library website can prevent errors.
4. Determine the consistency and standards of the website.
5. Examine the error prevention of the website
6. Examine the recognition other than recall.
7. Find out the flexibility and ease of use of the websites.
8. Determine the aesthetic and minimalist design.
9. Determine whether it help users to recognize, diagnose, and recover from errors.
10. Determine the help and determination of the website.

Research Methodology

Descriptive survey research design was adopted for the study. The population for the study consists of five university library websites selected in Sub-Saharan Africa. Sub-Saharan Africa is, geographically, the area of the continent of Africa that lies south of the Sahara. According to UN, it consists of all African countries that are fully or partially located South of the Sahara. These university libraries are Balme

university library Ghana, University of Pretoria library South Africa, Prof. Festus Aghagbo Nwako Library website in Nigeria, Sokoine National Agricultural Library in Tanzania, and Kenyatta University, Kenya. The heuristic evaluation checklist was used to evaluate ten elements that should be contained in the library website as prepared by Hennepin County Library Website. The websites of these university libraries in Sub-Saharan African countries were visited online by the researchers in March, 2017 to evaluate their library website using Heuristic evaluation criterion.

Results

This study evaluates the library's website in ten areas in line with Heuristic evaluation criterion which include: 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 than recall (Memory), flexibility and efficiency of use (Efficiency), aesthetic and minimalist design (Design), help users recognize, diagnose, and recover from errors (Recover), and help and documentation (Help).

Table 1: Heuristic Evaluation

Heuristic Evaluation Criteria	UPL (South-Africa)	BUL (Ghana)	KUL (Kenya)	PFNAL (Nigeria)	SNAL (Tanzania)
Visibility of System Status	✓	✓	✓	✓	✓
Match between system and the real world	✓	✓	✓	✓	✓
User Control and freedom	✓	✓	✓	✓	✓
Consistency and standards	✓	✓	✓	✓	✓
Error prevention	✓	✓	✓	✓	✓
Recognition rather than recall	✓	✓	✓	✓	✓
Flexibility and ease of use	✓	✓	✓	✓	✓
Aesthetic and minimalist design	✓	✓	✓	✓	✓
Recognition, diagnose and recovery from errors	✓	✓	✓	✓	✓
Help & documentation	✓	✓	✓	✓	✓

Table 1 show that all the five university library websites under study were in full conformity with what an ideal website should contain. In other words, they all meet the standard as portrayed by ten heuristic evaluation criteria which include: 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 than recall (Memory), flexibility and efficiency of use (Efficiency), aesthetic and minimalist design (Design), help users recognize, diagnose, and recover from errors (Recover), and help and documentation (Help).

Discussion of Results

Visibility of system status (feedback)

All the five university library websites that were evaluated have visibility of

system status (Feedback), as soon as the visitor gets to the library website, there will be a form for you to fill and you are required to indicate the category of user either a student or a visitor. In other word, the library via an interface requires every user to register through the creation of an account. An attempt to register was immediately turned down via the dialogue box display indicating by the web administrator that the campus ID and birth date did not match the information on the database. On the left hand corner of the system the researchers were able to see where you can chat a librarian online or you drop a message. Based on the aforementioned, it is obvious that the library website fulfils the criteria of visibility of system status.

Match between system and the real world (Metaphor)

The library webpage was designed with the general language that most international scholar or user 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, they give the opening hours from Monday to Saturdays, and they also provide information on when the library will not be opened or closed, especially on public holidays or if there is any unrest on the campus. For example, there was an information on the website of UPL that the main campus library will remain closed because of student's unrest but the other branches of the library will be open and there will be online services going on for any registered user that wish to make use of the library for that period. This library webpage matches the real world because it follows real-world conversation. The most recent event appears on top of the screen logically, and the past events are found down the dialog box. Some of the library website will give you links to their electronic databases. The researchers were able to see this on the library website that was evaluated.

User control and freedom (Navigation)

In the five library website under study, the moment you open the library website, on the right hand of the screen, you will see 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. Also on the top menu bar of the page, you will see so many information that will lead you to the material and service 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 the way the website is developed and designed. The library website has "search and find", "using the library", "research help", "about US" and "special collections" and "gallery" displayed at the upper end/part of the website. Each of them has a drop down menu indicating various areas accessible via the library service programs. At every stage of using the website, there are hyperlinks indicating various areas to go from there rather than some obscure references.

Error prevention (prevention)

The five library website under review has an error prevention method. The registration form that is filled online, has different fields where the user must supply information that is required on those fields, for example, in the field where a user ought to supply his or her correct or working electronic mail account and the user decide to fill any email address, when he or she wants to submit, the error prevention will not accept the registration form and it will inform you where you have done the wrong thing or the field that was skipped and the website will instruct or take you back to fill the incomplete field before it will accept your registration form.

Recognition rather than recall (Memory)

The five websites under this study has 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 researchers did not see where it was stated to remind us, 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 and recall, because these libraries can be accessed remotely without physical presences of the user.

Flexibility and efficiency of use (efficiency)

There is efficiency and flexibility of the universities library websites that were visited by the researchers, this is because there are quick links dialog box that will enable the experience user to work effectively and faster and it can also help the inexperience 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. The quick link dialog box is not centrally located and that makes it a bite weak.

Aesthetic and Minimalist Design (Design)

The library website depict a good work of a website designer, these websites were well designed with colourful backgrounds that are catching, and the website were designed to accommodate so many users at the same time. There are pop-up messages that come up each time a task is completed in order to notify the user or visitor on what action that has been done and to assure the

users of the successful completion of the task done.

Help users recognize, diagnose, and recover from error (Recovery)

The five university websites has excellent error messages that prevent a user to submit wrong information to the site. During the time the university visited the library websites, there was a notification on the site about an upcoming training on the UP library webpage and the researchers tried to fill it to see what result they could get, but could not submit that form because there were some fields in the form that they are not able to supply the information and that disqualified them from being participant in the training.

Help and documentation (Help)

The library web pages has a good link of "ASK 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 conformity with the heuristic evaluation suggestion saying there should be "ASK US" at each major homepage. These libraries have adequate ask us or chat with a librarian that will help a user at all times.

Conclusion

Based on the results of the study, it was discovered that all the five university library websites under study were in full conformity with what an ideal website should contain. In other words, they all met the standard as portrayed by ten heuristic evaluation criteria which

include: 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 than recall (Memory), flexibility and efficiency of use (Efficiency), aesthetic and minimalist design (Design), help users recognize, diagnose, and recover from errors (Recover), and help and documentation (Help).

REFERENCES

- Bothma, T., Cosijn, E., Fourie, I., & Penzhorn, C. (2014). Navigating Information Literacy: Your Information Survival Toolkit. Southern Africa: Pearson Holdings.
- Brower, S. M. (2004). Academic health science library website navigation: An analysis of forty- one websites and their navigation tools. *Journal of the Medical Library Association*, 92(4), 412-420.
- Chao, H. (2002). Assessing the quality of academic libraries on the web: The development and testing criteria. *Library and Information Science Research* 24: 169-94
- Connell, R. S. (2008). Survey of web developers in academic libraries. *Journal of Academic Librarianship*, 34, 121-9.
- Elsevier Library Connect (2003). How to design library websites to maximize usability. Retrieved from http://www.elsevier.com/framework_librarians/LibraryConnect/lcpamphlet5.pdf
- George C. A. (2005). Usability testing and design of a library website: An iterative approach. *OCLC Systems & Services*, 21(3), 167-80.
- Hinson, R., Madichie, N. & Ibrahim, M. (2012). A dialogic communications interrogation of the online brand dispositions of banks operating in Ghana. *International Journal of Bank Marketing*, 30(7), 508-526
- McGillis, L., & Toms, E. G. (2001). Usability of the academic library Website: Implications for design, *College & Research Libraries*, 62, 355-367.
- Pant, A. (2015). Usability evaluation of an academic library website. *The Electronic Library*, 33(5): 896-915
- Stubbs, Philip (n.d.). Heuristic evaluation, Hennepin county library website. Retrieved from <http://www.helib.org>
- Vasisha, S. (2013). Dissemination of electronic journals: A content analysis of the library websites of technical university libraries in

North India. The Electronic
Library, 31(3), 278-289.

Zins, H. (2007). Conception of
information science. Journal of the
American society for information
science and technology, 5, 335-50.