The Evaluate off Usability Web Design Based on the User Experience

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Abstract. The number of websites in this digital age has not been examined from how useful it is from the user's side. As happened on the www.nusamandiri.ac.id website, for this reason the authors conducted an evaluation with the User Experience approach, namely direct observation of the user of the web design by analyzing data through questionnaires on a system usability scale. The results of this study indicate that design web is very easy to understand and easy to use, so users get information precisely and quickly.

1. Introduction

Lately, there are many websites that provides a bunch of information. However, there are also many of these websites that cannot serve the main point of wondering why the website was created formerly and even, there are unsatisfied feelings for the website user. Here, according to the research, that has been conducted by User Interface Engineering Inc., it tells approximately 60% of time is wasted due to the useless effort for people to find the information they want to do on a certain website. Also, this has an impact on reducing the productivity, and increasing frustration and other disadvantages [1]. For this case, the website is said to be the information of dissemination media. As for this case, the writer arises STMIK Nusa Mandiri. It is a private institution which has a digital library in it.

About digital library which is defined as the common library that manages entirely or partly of the substance of the collections in a computerized form. It could be as an alternative form, supplement or the soft-copy books [2].

The library is said to be the Digital Library if it has several conditions; including electronic storage of assessing, intended for users, being equipped with good navigation, effective searching, no duplication and it has facilities for searching.

STMIK Nusa Mandiri utilizes Digital Libraries as the online information media which can be accessed by all students and alumni anytime, anywhere. Here, to find out the quality of the worthiness or properness of a website. So, it requires usability evaluation which has been the solution to find out the usability problem.

Based on the Digital Library officer who received complaints from the Digital Library website, there is an information that has not been updated, then the lecturers find it difficult to access, because they have to contact the admin first. Afterward, as being stated to the Information Systems Development Section,
it says that, it has never been done for this website evaluation previously. Hence, the website has not been reaching the aspect to be sufficient in terms of the usability for the side of satisfaction.

As has been declared by Zimmermann, *usability* focuses on the attributes of the system and attempts to avoid errors or *usability* problems [3] while the focus of UX is on the user and good user of response to that system which can be seen from emotions, behavior and values resulting from interactions with the system. There is also a research, conducted by Nielse, it formulates the factors causing the importance of the website to have usability aspects, including the habits or behavior of users of accessing the particular website. There is a few of users who cannot accept a bad *website design* and want to spend the time to learn a website, or in other words, some users really want to quickly understand (instant), for what is presented in a website [4]. In order to the system for achieving certain objectives effectively, efficiently, and reaching out the user satisfaction, then the evaluation is needed as well.

The next context, it deals with the word of evaluation. It is a test of the level by saying the usage rating and functionality system that is done in the laboratory, in the field, or in collaboration with users. The things, which are being evaluated of the human interaction and computer, are the design and the implementation. The evaluation should be done by considering all steps of the design-cycle. For the design, it must be user-centered. It means that, the user is involved so much for the design process. Therefore, there is an evaluation process which is conducted by the user toward the design results.

The stages, that are being done by the user interface design is by analyzing of user, then, it makes a design of prototype and exactly designs it based on it. Next, after from the designation session, then to make the prototype design, which is going to be evaluated by the users. Therefore, the prototype design will be producing a dynamic design after checking the design along with the user. This point says that, the designation has been approved. At last, it will be produced a prototype that is ready to be run.

Figure 1. The Concept of User-Interface Design

1.1. Statements of The Problem
Based on the research, it could be formulated to several statements, they are:
1. The lectures, as the user, feel hard to access due to the refusal of the admin’s permission
2. It has no track records formerly
3. The lack of several books and thesis

1.2. The Purpose of Research
The aim of this research is to evaluate the use of the library website of www.elibrary.nusamandiri.ac.id by approaching the user experience.

2. Method
2.1 Digital Library
Digital library is a source that rebuild the knowledge and supports of conventional library in digital form. Digital Library is organized assortment of information, with its supported services and a place where the information is kept in digital format and can be retrieved over a networks. It comprise of digital contents which interconnected by establishing link, metadata or simply query based relationship and software which may use basic pages in HTML or based on database management system. It can be interpreted on the basis of above definition that a single web page or huge collection mass digital information is not a digital library [5].

The evaluation conducted on the application of the Digital Library website at STMIK Nusa Mandiri. It was done by using the heuristic evaluation method. Heuristic evaluation uses guidelines, general principles, rules and experience that can help a decision or critique of a predetermined decision. There are several things to consider in the evaluation of heuristics used are compatibility between the system and the real world, consistency and standards, error prevention, flexibility and efficiency, links to beauty and minimalist design, assistance to users in case of errors and how to repair and help and documentation [6]

Xianjin et al (2015) worked on Flow experience with respect to Mobile Library and try to compares perception of user’s with mobile libraries and web digital libraries with respect to flow experience. Where flow experience defined as best experience about an activity that can be done by comparing perceived skills and perceived challenges. Study reveals that more users experienced flow in using web digital libraries than mobile libraries[7]. Evaluation began by looking at the suitability of the document there is a system run by the library manager there is a library information system. Then proceed with the use of existing tools on the system, the level of difficulty experienced by managers in running the system. The last thing to do is to look at the user interface of the system. In the STMIK Nusa Mandiri library information systems, they are 3 entities namely students, lecturers, and administrations.

3. Discussion
After making some observations and interviews directly to the library manager, the appearance is quite interesting to the user, both in color, layout and language use. The home menu shows a lot of information provided.

Evaluation is based on ergonomic aspects. Organizing controls and displays include:

a. Sequential: controls and displays are organized by showing the order in which they are used in the application. This is especially true for domains that work in sequence, for example starting from home

b. Frequency: controls and displays are placed according to the frequency of their use, with the most frequently used functions placed in easily accessible locations.
News Display Evaluation presented useful articles for visitors. It appeared as the article about the Swift Program Language, but unfortunately the news menu is rarely updated with the latest news, so that makes the visitors bored.

Book Review Display Evaluation contained books that can be used for lectures. In addition, book reviewers also display books that can inspire visitors. It looks good enough for visitors.
Tutorial Display Evaluation contained tutorial links to support lectures, but it is not appropriate to have an e-book link because there is only a tutorial text on the menu.

Evaluation of the Login Menu Appearances is less optimal because lecturers cannot directly log in if they do not meet the admin. All STMIK Nusa Mandiri lecturers should be able to directly access without prior approval. And this menu is also less effective for alumni, because it is not provided for access rights.
4. Conclusion
After evaluating the website www.elibrary.nusamandiri.ac.id with the design of the user interfaces design:
1. The information displayed at the beginning when the system is running is adequate,
2. All lecturers should have access to the website,
3. The display menu is quite interesting and easy to understand,
4. Book Review Menu should be updated for a period of 1 month,
5. The article menu should be updated every day.

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