The Role of User Experiences Towards Responsive Web

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Abstract

In today's growing world of technology, User Experiences (UX) are known as vital to the end-user especially in the field of Human-Computer Interaction (HCI). The initial requirement for an exemplary UX is to meet the specific needs of the customer without hassle. It also noted that the UX role towards responsive web design is also connected to the Joomla open sources system. Joomla is a great Content Management System (CMS) with a lot of flexibility. However, to establish the website, empathizing UX is the key fundamental architecture to create the website skeleton before crafting the tangible HCI. Most public university website in Malaysia are using Joomla as their medium to interact with the world and this includes Faculty of Art & Design, Universiti Teknologi MARA (UiTM) Shah Alam, Selangor. This research paper will present the scholars perspective on UX and will examine its implications in the HCI domain.

1. Introduction

In Present, user experience (UX) is a very popular term in the digital industry. Every user using freely in design and development including product, software, and website. User experience is encompassing all aspects including apps, software, products, and website for the end user's interaction with the company or services (Babich, 2017). UX is defined as the effects felt by a user as a result of interaction with and the usage context of system devices including emotional impact during interaction savoring the memory and it's an umbrella term for any activity that provides a better experience for the user. Besides, UX is vital to establish a website framework before creating human-computer interaction (HCI). Currently, there is a lot of open-source content management system (CMS) available in the market (Nagalingam & Ibrahim, 2015). Open-source CMS is also having its advantages and the most well-known is including Joomla, WordPress, and Drupal because it's good in functionality and support.

The role of user experiences (UX) plays a bigger innovation of technology also discover not only what users want but what they need (Cheri Mullins, 2015). Besides, it's complex, challenging, and multifaceted because this is how the UX role solves the problem in various ways, they are also growing quickly and being implemented more than ever before. Many different roles of UX may produce the same and similar deliverables which is including "annotated, wireframes, users flow, interaction design and graphic comps". This might be confusing, but it's different than another field. UX professional in any who is grounded in theory and focused on the user will understand the various objectives and output of the roles (Cherri Mullins, 2015). Most colleges and universities even company are preferred using open source websites to create their website rather than build

manually because of its open sources, object-oriented, IDE support, model-view-controller, etc. Joomla provided a lot of opportunities for less savvy users to maintain the content and advanced user controls configuration also website design to the end-users. Hence, Joomla is the second most popular CMS and accounts for 3.1% of the top ten million sites and 8.3% of the CMS market (W3Tech, 2018). CMS is an application (web-based) that provides capabilities for multiple users with different permission levels to manage the content, data, or information of a website project or intranet application (Heron, Hanson, & Ricketts, 2013). It also managing content refers to creating, editing, publishing, collaborating on distributing website content data and information. This Joomla has a lot of easy tools which is like navigation, plugin, templates, and features to crafting the website skeleton structure with a better experience for the end-users. It is noted that the issues that arose about the Joomla user experiences website are usability and UX information architecture such as loading time and website layout (Patel, Rathod, & Prajapati, 2011). Thus, this research paper aims to describe the perspective UX and examine the implications in the HCI domain. The test result and analysis will have discussed in this paper later.

2. Literature Review

User experiences are the design practice that focuses on creating experiences like apps and websites that would be easy and satisfying for users and user's interactions are intuitive, helpful, and enjoyable. To establish a good website, the UX component is a key fundamental architecture that is a mostly particularly multidisciplinary practice which is involved with interaction design, information architecture, visual design, content strategy, usability (M. F. Kamaruzaman, Azahari, & Anwar, 2012). The goal UX is an improvement for user's satisfaction and loyalty through utility, convenience and pleasure provided the interaction with services.

2.1 Information Architecture

Information architecture is the art of science which is organizing and labeling website to support usability and the foundation of the website to create a usable content structure of complex sets of information. They stated that "the practice of information architecture is the effort of organizing and relation info of a way that simplifies how people navigate and use the information of the web". According to Information Architecture from the world wide web books defined as the "three circles of information architecture" regarding a website which three are context, users, and content (Moville, 1998). According to faceted classification, there are two of the main organization systems Web content which is organized in pages and hierarchical dependency. Users navigate from the most general, higher-level pages to more specific, deeper pages or vice versa. Besides, the layout and labeling of the navigation elements for similar pages and sections must be coherent and consistent to facilitate navigation and avoid confusing users. These are common things in the organization system people group for such as date, format, social, etc. User navigation and orientation can be supported using secondary menus and bread crumbs that specifically indicate the hierarchical position of the page on which the user has navigation elements also it enables users to view indexes of the content associated with specific metadata categories which are presented according to various sorting criteria (Rani, Yusoff, Azman, & Kamaruzaman, 2015). A label is an item used to identify something on a website. Furthermore, they assure the website ends deliverable well, multiple ways are getting to approach information architecture right to understand the end user's goals and problems on the website. Hierarchy and faceted classification are two of the main organization systems (Garrett, 2010). Web content is organized in pages and page groups (section) that are linked to each other by parental hierarchical dependency. Users also navigate from the most general, higher-level pages to more specific, deeper pages or vice versa. The layout and labeling of the navigation elements for similar pages and sections must be coherent and consistent to facilitate navigation and avoid confusing users. These are common things in the organization system people group for such as date, format, social, etc. User navigation and orientation can be supported using secondary menus and bread crumbs that specifically indicate the hierarchical position of the page on which the user has landed). Navigation elements also enable users to view indexes of the content associated with specific metadata categories which are presented according to various sorting criteria. A label is an item used to identify something on a website. There are three types of importance and usability (UX) and findability such as document labels, content labels, and navigation labels and it should be as descriptive as possible though navigation tend to be shorter than labels.

2.2 Content Strategy

According to Bill Gates, Content is a king, the content strategy is determining how, why, where, and when content will go into an experience. The content refers to any type of information that is recorded which is like video, images, and information (Marli Ritter 2017). The website content is similar to editorial strategy and defining the user experiences characteristic. According to the researcher, user experiences should have a purpose and must be meaningful in helping a user achieve a task.

2.3 Usability

Usability is defined as a focus on people of their satisfaction and how they use and understand the things like websites. People change very slowly while technology changes are very quickly (Wiener, Ekholm, & Haller, 2017). The concept of usability it's not just about technology and ease to use. Besides, usability is a component of human-computer interaction ensuring that is effective, efficient, and satisfying the user. Usability is the pragmatic component of a user's experience including productivity, ease of use, learnability and retains the ability, and the pragmatic aspects of user's satisfaction (Mahyavanshi, Patil, & Kulkarni, 2017). Besides, there is a lot definition of usability website, which like useful, learnable, memorable, effective, efficient, desirable and delightful. Also, he stated that the definition of "usability" is a person of average ability and experience who can figure out how to use the thing to accomplish something without being more trouble and worth it (Krug, 2014). Hence, usability is a fundamental user experience. Imagine without usability it is difficult to create functional users experiences (Geng & Tian, 2015). It is very important because, if a service like a website has bad usability, users are not able to achieve the aims and efficiency. They will leave the website and start to seek an alternative variant. A service with bad usability will lead to bad user experiences. Usability has a more and more traditional part of the world of technology, so there will be misunderstandings in the concept. Usability is not equivalent to a "users friendly" role.

2.4 Wireframes

The fundamental information architecture process and the skeleton of the website is a wireframe. Hence, the wireframe is a two-dimension illustration of a page interframe that specifically on four spaces. According to Garrett (2002) described UX wireframe things might appear as standard elements of a web page which include site identity logo, page title heading, search form, breadcrumb trail navigation, etc. Based on the book The Elements of UX written by James Garrett (2002) stated that the value of wireframes is connected to the state of information architecture to a visual design by showing the path between pages and clarity of a consistent website. In this study, wireframing has two types of wireframes which are low-fidelity wireframes and high-fidelity wireframes. Low fidelity wireframes are defined as quick to develop or use the simple image to block spaces and implement mock content. The high-fidelity wireframes are better for documentation because of the increased level of detail. The picture below described details of the wireframe. This website wireframe is a starting point for a designer's mindset to work on the layout of the content writer's thought including a hierarchical frame. It's also described as providing a simple picture by organized the blocks that would show space allocated for an image and "the loren ipsum" content to get a rough estimate of the length of different content blocks. This research will be focused more on UX low fidelity wireframes towards faculty arts & design responsive website.

3. Methodology

In this scenario, the website of the Faculty of Art & Design, Universiti Teknologi MARA (UiTM), Shah Alam, Selangor, Malaysia was chosen to gaze the role of user's experiences characteristic towards responsive web design (M. Kamaruzaman & Zainol, 2014) The data for this study was gathered via structured questionnaire to fifty respondent including potential undergraduate students, parents, and guardians. The survey questionnaire questions covered several topics regarding Joomla and web design based on the fundamental of user experiences (UX) towards a responsive website. After gathering all the data, the analysis of the survey was conducted. It is noted that most of the respondent agreed that the user experiences in Joomla responsive website it's very demanding to absorb.

4. Result and Discussion

This study found that potential undergraduate students, parents, and guardians have difficulties using this public university responsive website. There is mainly feedback from the end-users among potential undergraduate students, parents, and guardians. The data for this study was gathered via a structured questionnaire to fifty respondents including potential undergraduate students, parents, and guardians. The survey questionnaire questions covered several topics regarding Joomla and web design based on the fundamental of user experiences (UX) towards a responsive website. Figure 1 to figure 6 below shows the data analysis of the survey. It is noted that most of the respondent agreed that the user experiences in Joomla responsive website it's very demanding to absorb.

   i.   Majority respondent have ever accessed the Faculty of Arts & Design Universiti Teknologi MARA responsive website.
   ii. Users are mainly agreed that they need to scroll and zoom first before browsing the information which is difficult.
   iii. Users agreed that the website information is difficult to read.
   iv. About the button features, end users agreed they are feel confused which button need to click first and its difficult.
   v.   In terms of usability website content, end users are preferred to make an improvement of the website in future.
   vi. Users need to take a longer time waiting for website loading during pages conversion.
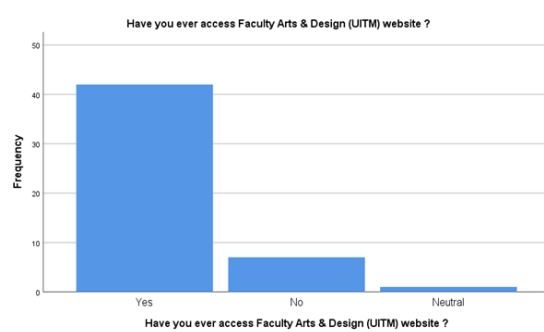

Figure 1. Show that 40 percent respondent have access Faculty Arts & Design (UiTM) website
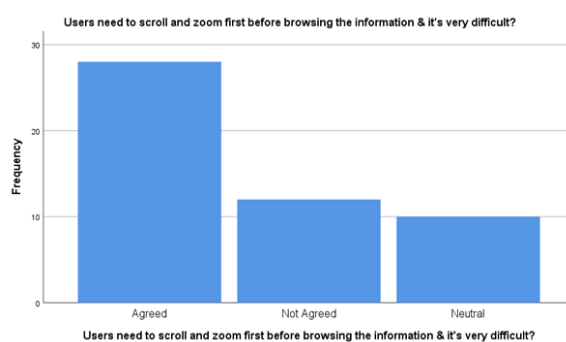

Figure 2. Indicates that 30 percent respondent agreed that end users need to scroll and zoom first before browsing the information which is very difficult to use. They are actually didn't want to waste more time while using the website and suggest to make responsive one page scrolling instead click one by one.
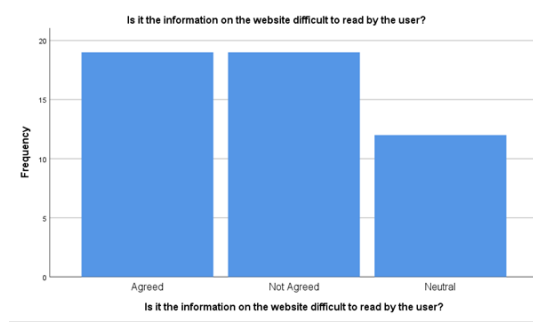
Figure 3. In terms of readibility content, it shows that almost 20 percent of the respondents agreed the information on the website difficult to read by the users.
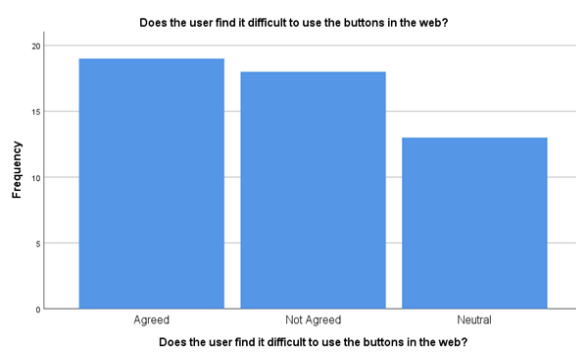

Figure 4. Indicates 20 percent of majority respondent agreed are having difficulties using the buttons features on the website , hence they feel confused which one to click first.
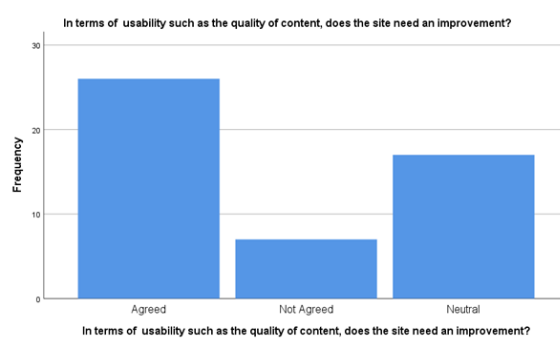

Figure 5. In terms of usability like the quality of content, majority respondent indicates agreed that user experiences in joomla responsive website need an improvement in the future.
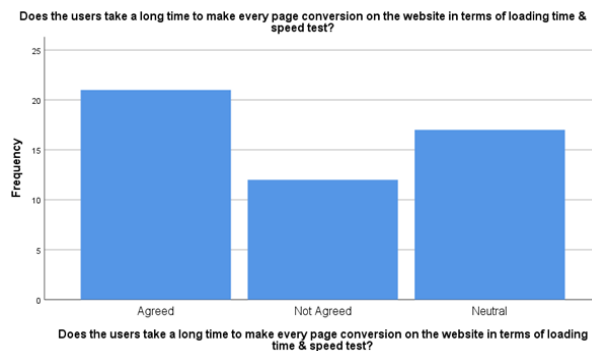

Fig. 6 The graph majority 20 percent of the respondent agreed that they need to take a long time waiting for page conversion while using the website.

5. Conclusion

From the above analysis of the pilot study, the role of user experiences toward Joomla responsive web design proved that the initial user experiences from a scholarly perspective are the most difficult to use it. Thus, it shows the highest result from the majority of the respondents, they are indicates agreed to suggest improve the fundamental UX towards the issue on the website in the future.

Acknowledgements

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