

Assessing the Comfort in use of a Flipboard Mobile News and Magazine App

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Abstract: A perceived usability assessment was conducted on Flipboard mobile application, a mobile news magazine application with 13 students from the Universiti Utara Malaysia to assess the comfort in use of the app. In this study, the researchers evaluated the users' reactions to the mobile application using a post-test survey carried out after the study participants had finished performing some tasks on the Flipboard mobile app in the testing environments. The results showed that most of the study participants were satisfied about the app's screen (visibility), app terminologies, and learnability and had a general impression that the app was aesthetically pleasing, impressive and comfortable in use. The summary of these findings was that the Flipboard mobile app was perceived usable and comfortable to use by majority of the study participants.

Keywords: Mobile app, comfort in use, perceived usability evaluation

I. INTRODUCTION

The usability of mobile gadgets and their applications varies from other PC systems, on the grounds that their qualities are different. The software needs of handhelds, for example, PDAs and mobile phones, influence the development procedure of mobile applications, as these are inserted in the phones during production or installed by clients from several mobile software dissemination platforms, for example, Apple's App Store and Google's Android Market. Users generally pick mobile applications that are easy to learn, and which allow them to perform specific task in lesser time, and that look more user-friendly since they are less computer-oriented. Lab experiments, field studies, and hands-on estimation are some of techniques frequently used by researchers to evaluate

usability (Ryu, 2005; Gafni, 2009; Hashim&Adamu 2017; Hussain et al., 2016a; 2016b; 2017a; 2017b; 2018; Coursaris& Kim, 2011). Also, the usability of software systems are tested subjectively, and the procedure was not very much characterized. According to Balagtas-Fernandez et al., the usability attributes such as satisfaction, comprehensibility and learning performance can be measured by means of quantitative surveys (e.g. questionnaires) (Taentzer, 2000). Nayebiet al.(2012) stressed that investigators in field studies inspect users while they are performing some operations, these investigators also take notes and ask questions about some relevant activities the users do. It is known that the technique is valuable at the early stage of developing a product for collecting user requirements. It is likewise valuable for analyzing the tasks and procedures being executed at the moment or at that period in time. The usability of a mobile application is estimated based on the participants' doing the task in a real life circumstances. There are a lot of methods for the evaluation of usability however Duh et al. (2006) concluded that: "There were a lot more types and occurrences of usability issues found in the field than in the laboratory. Those issues found will in general be important issues about usability. A portion of these usability issues are just identified with the gadget being utilized in the field, which could not be discovered utilizing customary laboratory usability tests. With respect to the users' behaviors, users act less positively and more negatively in the field than in the laboratory. Though, a few behaviors must be studied in the field. Users likewise take more time to do specific tasks and furthermore present increasingly negative emotions, for example, not satisfactory and not easy to use, to the utilization of the device in the field. Questionnaires and hands-on techniques created for mobile usability estimation do not consider the user interface highlights given in the latest version of mobile operating systems that are common among users these days

This study was designed to investigate the perceived usability and comfort in use of the Flipboard mobile app. The main goal of the usability evaluation of the app was to get to know the perception of users about the usability of the app after using it. Flipboard mobile application is a very good news and magazine app, but there are not many people who knew about the application or the amount of purposes it serves.

Revised Manuscript Received on May 22, 2019.

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Naturally the Flipboard app has robust features but complex layout and navigation which may serves as a problem for users to get accustomed with on a daily basis. The app initially was a web application before it was also made into a mobile application. So, most people only knew about the website and not the mobile app since the web app is easy to use. The issue is how to get people to familiarize and be accustomed to the use of the mobile app, instead of having to be on a browser before they can check news on Flipboard which may cause a little inconveniency.

II. METHODS

The study invited 13 students (10 male and 3 female) from the Universiti Utara Malaysia (UUM) campus. The users were categorized into three categories in term of the number of years the users have been using the application: 1: experienced users (3 years and above), 2) moderate users (1 - 2 years), and 3) novice users (less than a year). Table 1 depicts the users' demographic information.

Table. 1 User Profile

User #	Gender	Study level	Experience
1	Male	Postgraduate	Novice
2	Male	Postgraduate	Novice
3	Female	Undergraduate	Moderate
4	Male	Postgraduate	Novice
5	Male	Postgraduate	Novice
6	Male	Postgraduate	Novice
7	Male	Postgraduate	Novice
8	Female	Postgraduate	Novice
9	Male	Postgraduate	Novice
10	Female	Undergraduate	Novice
11	Male	Postgraduate	Experienced
12	Male	Postgraduate	Moderate
13	Female	Undergraduate	Moderate

Users were made to use the app based on some pre-specified tasks. The tasks were carried out either at the post-graduate section of the UUM library or at the smart reading rooms near the UUM library or at the Library foyer during the time when it was most quiet. The other place used in achieving the field-testing was the students' residential hall of DPP Sime Darby and the Student Lounge located around the students residential hall. The users were given the permission to perform the tasks in any order they prefer. The participants were allowed to use their various mobile devices that can either be android or iOS to perform the tasks so as to make them more comfortable in carrying out the tasks since they are used to their own mobile phones and will prefer it to another type of mobile devices they have never used before. The 13 study participants in each session were required to test the Flipboard application by

using the touch screen to accomplish the 5 tasks. The testing is conducted individually, one user at a time. After completing the tasks, the participants were required to complete the post-test questionnaire. The following are the five tasks involved in the testing: 1) Register an Account; 2) Add categories of news; 3) Link social media accounts to the app; 4) Follow a magazine page; 5) Create a collection (playlist) of news in profile account. The post-test survey provided the data on users' reactions to the app.

III. RESULTS

The post-test questionnaire administered had 4 sections: visibility, app terminology, learning and general impressions. Overall, the instrument had 23 questions. Each question is a 5-point likert-type item with the following points: Strongly disagree, disagree, neutral, agree, and strongly agree. On the ease of use and visibility of the interface, all participants (100%) agreed that the characters on the touch screen were easy to read. 77% agreed that highlighting on the screen made task easier to complete. Also, 69.30% both agreed that the screen layout made tasks easier to complete and that sequence of screens were very clear. In addition, 87% of the participants agreed that the screen items were easy to select. With respect to the application's terminologies, 53.90% of the study participants perceived that the uses of terms throughout the application were consistent. Furthermore, 84.60% of the participants were of the opinion that messages (that is, feedback) which appeared on screen were consistent. Another 53.90% perceived that instructions to the user on the interface were clear. Also, a 46.20% of the participants agreed that the application kept them informed about what it was doing. However, 38.50% of the participants agreed that error messages were helpful (on the other hand, 23.10% disagreed). In addition, 43.90% perceived that voice assistance in the app were helpful.

Concerning learning, most of the participants (77%) perceived that learning to operate the application was easy and that explorations of features by trial and error were encouraged in the app. Also, 69.30% of the study participants agreed that remembering terms and the use of commands on the app was easy. Furthermore, 53.90% of the users agreed that tasks on the application always can be performed in a straight forward manner. In addition, 69.30% of them perceived that help messages on the screen (that is, on the interface) were clear. With regard to the application capabilities, most participants (92.30%) were of the opinion that the application's speed was fast enough.

Also, 69.30% of the users perceived that the application's sounds tend to be appropriate. In addition, 46.20% of the participants perceived that correcting their mistakes on the app was easy. Furthermore, 53.90% perceived that the needs of both experienced and in experienced users were taken into



consideration in the design of the app. Overall, majority of the participants (84.60%) were of the impression that screens were aesthetically pleasing to them; that the application was very much impressive (69.30%) and that the application was user friendly (84.70%).

IV. CONCLUSION

In this study, the researchers assessed the users' reactions to the Flipboard mobile application using a post-test survey carried out after the study participants had finished performing their tasks on the Flipboard mobile app in the testing environments. The results showed that most of the study participants were satisfied about the app's screen (visibility), app terminology, and learning on the app and had a general impression that the app was aesthetically pleasing, impressive and comfortable in use. The summary of these findings is that the Flipboard mobile app was perceived usable by majority of the study participants.

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