Dashboard settings design in SVARA using user-centred design method

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Abstract

SVARA is the first Social Media audio application in Indonesia developed by PT. Zamrud Teknologi Khatulistiwa. At present, this application does not have feature settings to display content and other basic settings on the user's side. This situation results in users not having the role to manage the appearance of the dashboard according to their preferences. Settings are done entirely by administrators using scripts and must take APIs with regular PHP scripts. And this is very troublesome. So to give a role to the view of user management, the application needs to be made a dashboard setting feature as a follow-up. Through this paper, the researchers propose designing this dashboard feature using the User-Centered Design (UCD) method. The design results show that this method has a positive correlation with user involvement support in the application development process.

Keywords: application design, dashboard setting, svara, UCD method, user interfacer

1. Introduction

The Svara application is an initiative developed by PT. Zamrud. SVARA application consists of frontend and backend side. The frontend side of the SVARA app is on Android, iOS, and the Web. The frontend side of this application is used by the user, while on the backend side of the SVARA application itself is a dashboard used to perform statistical management of data obtained on the frontend side of SVARA applications. Thus, on the back end can be done statistical data management on the use of content and report revenue sharing from the data obtained on the frontend side with access restrictions on the dashboard by the role of each user who uses SVARA applications. The back end side of the SVARA application is an essential part to be a useful reference by PT. Zamrud Khatulistiwa Technology. One of the features found in the SVARA application dashboard is the application settings feature.

Dashboard backend Svara application on Application Setting feature is a dashboard that works for setting the display content and other basic settings. Currently, the dashboard on SVARA back-end application is still simple by taking the API with a regular PHP script. Therefore, to make it easier for the admin to adjust the appearance of the content as desired then it needs to be done for better development again. So if users want to change the display settings on the content no longer need to create by using the script. This feature can help the admin or curator, to change or customize the look by the desire. This feature is a feature used to perform various settings on the SVARA application. During the development of the application setting feature, the methodology used is UCD (User-Centered Design). So based on the above background, the main problem to be analyzed is how the process of analysis on the design features application dashboard settings and how the application of UCD method on the feature.

2. Related Works

The UCD process ensures a stable integration of later users throughout all phases of the project. An overview of user involvement and methods used depicted. UCD has a life cycle stage design, so the design is made to be better. The stage in UCD will iterate until the prototype was evaluated [1]. Several approaches are known to seek information on user needs and knowledge to feed the design process [2-4]. These approaches frequently applied in

designing ICT systems. If UCD applied to more complex environments, it would often be referred to as User Experience Design (UX) as described above. A conventional method in UE is to establish cycles of prototyping and user testing. These are used to optimize the design iteratively [5].

Within software development, there are numerous methods for designing software applications [6, 7]. All stress the need to meet technical and functional requirements for the software. It is equally important to consider the user requirements if the bene as outlined above are to realized. User-centered design (UCD) is concerned with incorporating the user's perspective into the software development process to achieve a usable system [8]. User-centered design (UCD) is a group of methods and principles aimed at supporting the design of useful, usable, pleasurable and meaningful products or services for people. The central principle of these methods is that they describe how to gain and apply knowledge about human beings and their interaction with the environment, to design products or services that meet their needs and aspirations [9].

3. Research Method

UCD method is one of the methods for developing the system in building the interface with the user with more involved tasks, needs and information from the user to design the appropriate design. With more user focus, the UCD method is one of the most suitable methods for what problems the user needs. Another opinion also suggests that the UCD method is a well-known approach to seeking information about user needs with useful knowledge to feed the design process.This approach often applied to design ICT systems. UCD centers on cognitive science, psychology, and computer science to make systems more useful and easier to use [8].In the field of software development, there are many methods for designing software applications.All emphasize the need to meet the technical and functional requirements for software. It is equally important to consider the needs of users. Appended human design (UCD) concerned with combining the user's perspective into the software development process to achieve a usable system [10].

The principles to considered in UCD are Active engagement from users and a clear understanding of users and task requirements. One of the critical strengths of human-centered design is the active involvement of end users who know the context in which the system will be used [11]. Possible allocation of functions is between users and systems. It is essential to determine the aspect of the job or task that should be handled by people, and that can handle by software and hardware. This division of labor must base on the appreciation of human ability, their limitations and a thorough understanding of the particular demands of the task [8]. Interactive design. The system developed must be defined, designed, and performed multiple tests. Based on the results of behavioral tests of the function, it will also conclude the success rate of the product (application) [12].

The UCD concept consists of User familiarity/familiarity, using terms commonly used and recognized by users in general. Consistency, consistent in operations and phrases used throughout the system, so it is not confusing. Minimal shock / Does not make the user surprised: The user can predict the process that occurs by an existing order. User guide, There are ways to use the system to make it easier to run the system [13, 14]. Regarding the implementation of this system, Figure 1 describes the stages of the UCD method. Phase UCD method contains a planning process that is human-centered, determines the context of use, sets requirements, produces designs and evaluates design requirements [15].

4. Results and Analysis
4.1. Plan the Human-Centered Process

At this stage the researcher conducts a literature study of this method done by reading and understanding reference books, journals, and other media related to data processing in general that support and reinforce existing theories, so as to inculcate the commitment that the design using the User-Centered Design (UCD) can be applied to the Application Setting feature [17-18].
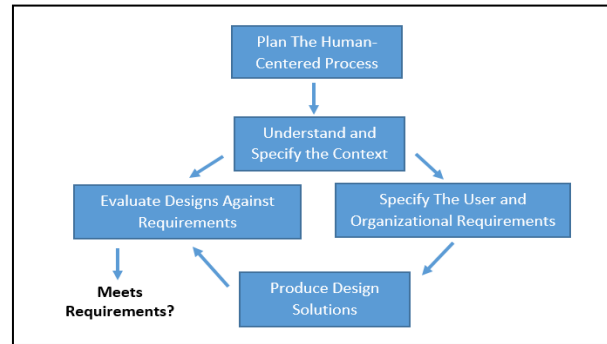
Figure 1. User-centered design cycle [16]

4.2. Specify Context of Use

Specify the context of use Identify who will use the system. Will explain what and under what conditions, they will use the system [19-21]. This stage the researcher will identify the user who will use the application setting feature. The first one is Admin; Here Admin has access to all features available on Svara Dashboard application one of them on Application Setting feature, the second one is Curator (radio), here Curator (radio) has limited access to every feature contained in dashboard application Svara. One feature that can be accessed by Curator (radio) is the Application settings feature. In the application settings feature, Curator (radio) can adjust the look of the feature by the wishes of the Curator (radio).

4.3. Specify Requirements

Specify User, and Organizational Requirements Identify user needs and organizational needs [22, 23]. This stage the researchers will identify against a detailed list of user needs through interview techniques. Based on the interviews of the needs, there is some information needed to be related to the design of the feature: Manage on existing content: create, update, delete and Manage in the viewing position (drag and drop).

4.4. Product Design Solutions

Product Design Solutions Builds the design as a solution to the system analyzed [24]. This stage is the design stage of the solution. Where the researcher will build the design as a solution of the system analyzed appearance on the application settings feature is a page that has a function. Referring to Figure 2 and Figure 3 below, it is explained, that at the stage of the product design solution will build the design in the Application Settings feature. In this feature, there are feature preview pages and content-added pages. Each page has specific functions.
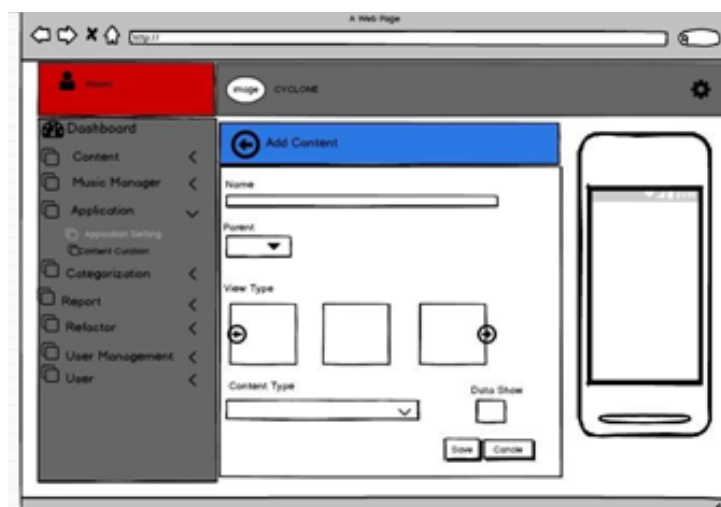

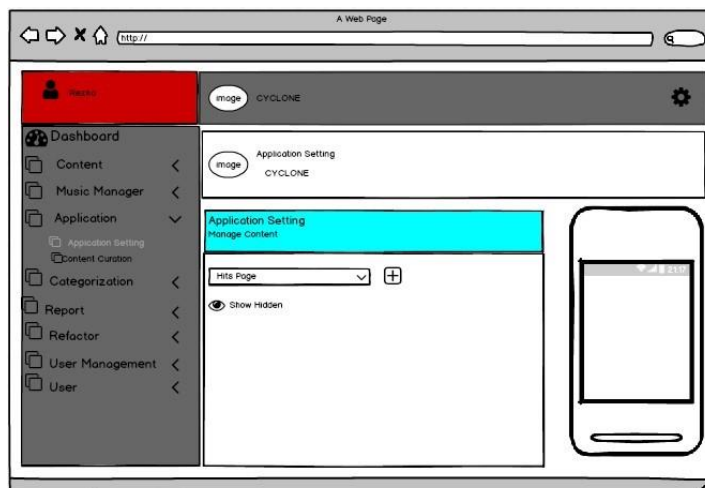Figure 2. User interface initial display of application setting feature

Figure 3. User interface display add content

The user interfaces display can help users to customize the appearance of content as desired through easy-to-use media [25]. So if the user wants to change the display settings on the content, there's no need to make it using complicated scripts anymore. Figure 3 shows the ease presented by the application feature to help users add or change content according to their preferences.

5. Conclusion

The use of the UCD system method in building user interfaces on applications has involved more tasks, needs, and information from users to the appropriate design. The design results show that this method has a positive correlation with user involvement support in the application development process. From these conclusions, some suggestions are expected to help that the provision of features to provide the user role in managing their preferences is a significant effort to provide convenience in operating this application. Related to this, UCD is the right method for designing its development.

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