

Paul Ricoeur's Hermeneutic Analysis on User Interface Design for Augmented Reality Baleganjur Applications

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Augmented reality technology or more popularly known as AR is a technology that implements interactive multimedia concepts. Augmented reality technology is a technology that combines the virtual world with the real world in real-time, through electronic devices such as cameras, sensors and software, augmented reality is able to display virtual objects in both 2D and 3D form in the real world. In this study, it focuses on analyzing the appearance of the interface design or the main menu application user interface by implementing augmented reality technology, with the name of the application, Augmented Reality Baleganjur. The user interface display on the main menu of the Baleganjur Augmented Reality application has design elements that can be translated with different meanings and understandings, depending on the user's point of view. This is the basis of this research, where the appearance of the user interface design on the main menu of the Baleganjur Augmented Reality application has design elements that can lead to different interpretations of meaning and understanding. The purpose of this study is of course to reveal the meaning and understanding of the design elements in the user interface design display of the Baleganjur Augmented Reality application, by conducting an in-depth analysis using Paul Ricoeur's Hermeneutics. As for the results of this study, it can be concluded that researchers as hermeneutics have an important role in interpreting and offering solutions, which can later be used as a reference for repairing or perfecting design elements in the application user interface, so that these design elements can convey meaning and understanding in a comprehensive and detailed manner to users.

Keywords: Hermeneutic Analysis, Paul Ricoeur's Hermeneutics, User Interface, Augmented Reality Baleganjur, Baleganjur.

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INTRODUCTION

Design is a concept that has various meanings and meanings, depending on each context. In the field of art, design is an expression that is contained in the values of creativity. However, in general, design can be defined as a process for creating a visual or functional solution to a particular problem. Through designs that involve the use of visual elements such as images, colors and text, messages or information can be conveyed to the audience. In the current digital era, various forms of processed designs have been implemented in various fields, one of which is in the field of technology. The application of design in the field of technology can give an attractive and easy-to-understand impression in conveying information to users, both technology in the form of a system and in the form of an application.

Technology that is always side by side with the appearance of the interface design is technology that is packaged using interactive multimedia concepts. Interactive multimedia is a technology that combines various media such as text, images, sound and video to create interactive experiences for users. In interactive multimedia, users can control and manipulate the media content presented, making learning or interacting experiences more interesting and effective ([Diana, 2019](#)). Augmented reality technology or more popularly known as AR is a technology that implements interactive multimedia concepts. Augmented reality technology is a technology that combines the virtual world with the real world in real-time, through electronic devices such as cameras, sensors and software, augmented reality is able to display virtual objects in the form of both 2D and 3D in the real world ([Stanaya, 2019](#)).

In this study, it focuses on analyzing the appearance of the interface design or the main menu application user interface by implementing augmented reality technology, with the name of the application, Augmented Reality Baleganjur. This baleganjur augmented reality application runs on a mobile/smart phone device with an Android-based operating system, which is capable of displaying baleganjur gamelan objects in 3D models. The user interface display on the main menu of the Baleganjur augmented reality application has its own uniqueness for its users, because the user interface display combines traditional Balinese elements with minimalist design elements. The user interface display on the

main menu of the Baleganjur augmented reality application has design elements that can be translated with different meanings and understandings, depending on the user's point of view. This is the basis of this research, where the appearance of the user interface design on the main menu of the Baleganjur augmented reality application has design elements that can lead to different interpretations of meaning and understanding to its users.

This study uses the theory of hermeneutics which is an analytical method used to think critically in interpreting text, images, and other symbols. Etymologically, the word hermeneutics comes from the Greek word *hermeneuein* which means to interpret. So, the noun *hermeneia* can literally be interpreted as interpretation or interpretation ([Suci, 2021](#)). According to Paul Ricoeur, hermeneutics is the study of interpretation, especially in the context of literary and philosophical texts. Ricoeur views interpretation as a process of understanding the meaning contained in the text and the social, cultural, and historical contexts that make up the text ([Ricoeur, 1976](#)). Ricoeur also stated that meaning is not only taken from the author's view of life, in this case the maker of the application's user interface design, but also from the understanding of the views of the reader's life, in this case the user of the Baleganjur augmented reality application.

The purpose of this study is of course to reveal the meaning and understanding of the design elements in the user interface design display of the Baleganjur augmented reality application, by conducting an in-depth analysis using Paul Ricoeur's Hermeneutics, which is expected to provide meaning and understanding as a basis for reducing uncertainty in interpreting and understanding a display. application user interface design, especially in the application of applications based on augmented reality technology.

RESEARCH METHODOLOGY

This research is a type of qualitative research with a descriptive approach, using hermeneutic theory as the method of analysis, especially Paul Ricoeur's Hermeneutics. Qualitative research focuses on processes and values that have not been thoroughly researched or measured ([Hardani, et al. 2020](#)).

The hermeneutic methodology is realized through the interpretation of a text or reality that is useful for finding its essence, taking into account the historical context, tradition, interpretive knowledge and experience ([Hamida. 2022](#)). Hermeneutics allows a deeper understanding of the meaning of a text or cultural object. Ricoeur views interpretation as a process of understanding the meaning contained in the text and the social, cultural, and historical contexts that make up the text (Ricoeur, 1976). Hermeneutics helps in understanding human experience and the world around it. According to Ricoeur, hermeneutics can help us understand human experience and the world around us through the process of interpreting text and the context that shapes that experience ([Ricoeur, 1981](#)). Hermeneutics recognizes the role of individual subjectivity and interpretation in understanding a text or cultural object. Ricoeur emphasizes the importance of subjective experience and individual social, cultural, and historical contexts in understanding a text or cultural object ([Ricoeur. 1974](#)).

Ricoeur characterizes the fundamental difference between text and oral language, where text is an autonomous corpus, which is characterized by four things, namely:

- a. In a text, the meaning contained in "what is said" (what is said) is independent of the process of expression or the act of saying, whereas in oral language these two processes cannot be separated.
- b. The meaning of a text is no longer bound to the speaker as spoken language. The author's intent has been hindered by the text that has become standardized.

- c. A text is not tied to the original context of the speech, because it is not tied to the dialogue system. What the text points to is an imaginary world built by the text itself.
- d. The text is no longer tied to the original addressee. Written texts are not intended for specific readers, but for anyone who can reach them, not limited by space and time ([Wasim. 2020](#)).

The analysis in this study is the design of the main menu user interface for the Baleganjur augmented reality application, which was created in 2022. In the user interface design for the main menu for the Baleganjur augmented reality application, there are design elements with different interpretations of meaning and understanding, depending on the user's point of view.

RESULT AND DISCUSSION

The Baleganjur Augmented Reality application is a work created in 2022 by implementing augmented reality technology in the form of an application based on the Android mobile operating system. Baleganjur augmented reality is able to display various Baleganjur gamelan objects in the Bali area in the form of 3D models, which can be seen on the mobile/smart phone device layer. In the user interface design display for the main menu of the Baleganjur augmented reality application, there is a design element depicting a user's hand holding a mobile/smart phone device directed at an image in the form of a QR Code, and at the top of the mobile/smart phone layer a pair appears. drum object which is part of the baleganjur gamelan in the Bali area. These design elements are then analyzed using Paul Ricoeur's hermeneutics.



Figure 1. User Interface Design Display Main Menu Application Augmented Reality Baleganjur. (source: author, 2022)

A detailed discussion of Paul Ricoeur's hermeneutical analysis can be broken down into three parts, including:

1. Hermeneutic analysis as a process of understanding meaning.

This analysis phase focuses on the process of

understanding the meaning contained in design elements, both from the side of the maker and user of the Baleganjur augmented reality application. If it is related to the definition of design, there needs to be elaboration to be able to explain what good design is so that users can easily understand the intent to be conveyed by the maker of these design elements ([Hertenstein, 2013](#)).



Figure 2. Design Elements in the Main Menu User Interface of the Baleganjur Augmented Reality Application (source: author, 2022)

Based on these design elements, the results of the hermeneutic analysis are the process of understanding the meaning from the designer's point of view, namely the designer wants to convey a description of the application of

augmented reality technology itself. This is clearly illustrated through the drum object which is deliberately placed at the top of the mobile/smart phone layer, with the aim that the user can understand that later when using the

Baleganjur augmented reality application the user can see the appearance of the drum object in the form of a 3D model on the mobile/smart layer. user phone.

The results of the hermeneutic analysis as a process of understanding the meaning from the user's point of view, namely the user captures an image of a kendang object with a 3D model display on a mobile/smart phone device, but the user does not understand exactly the use of the image on the back of the mobile/smart phone in the form of a QR Code. The user does not know in detail what the use of the QR Code image is, so the user also analyzes whether there is a relationship between the QR Code image and the mobile/smart phone device that is depicted in the user interface design for the main menu of the Baleganjur augmented reality application.

The solution that can be offered by the author in hermeneutic analysis as a process of understanding this meaning is the need for a certain icon or code that can provide information to the user that the QR Code image located on the back of the mobile device/smart phone has a significant connection to the appearance of a 3D kendang object. the model, so that the existence of certain icons or codes can strengthen the understanding and meaning according to what the design element creator wants to convey.

2. Hermeneutic analysis as a process of understanding context interpretation.

This analysis phase focuses on the process of understanding the interpretation of the context contained in the design elements, both from the side of the maker and user of the Baleganjur augmented reality application. The process of interpreting context means how to understand the experience that the maker wants to convey so that the user can understand and interpret what the maker of the design elements wants to convey.

The results of the hermeneutic analysis are the process of understanding the interpretation of the context from the side of the designer, namely the designer wants to convey a clear and easy-to-understand description for the user. This is illustrated by pressing the object of the hand that is holding the mobile device/smart phone, which then on the screen of the device appears a drum

object in the form of a 3D model as the main function of applying augmented reality technology.

The results of the hermeneutic analysis are the process of understanding the interpretation of the context from the user's point of view, namely the user understands that the use of the augmented reality application is to display or display drum objects in the form of a 3D model, but the user does not understand in detail about the detailed steps so that the drum object is a 3D model. can appear on mobile devices/smart phones. Based on this, the user has not fully understood how to do or certain steps to be able to bring up a 3D model kendang object on a mobile/smart phone device.

The solution that the author can offer to hermeneutical analysis as a process of understanding the interpretation of this context is the need for a special page or menu button regarding guidelines on how to use the application. Through the page or special menu button, the user gets detailed information about the stages in using the Baleganjur augmented reality application, because on the application's main menu page there are no pages or menus that can provide detailed information about how or the stages of using the Baleganjur augmented reality application.

3. Hermeneutic analysis as a process of understanding context experience.

This analysis phase focuses on the process of understanding the contextual experience contained in design elements, both from the side of the maker and user of the Baleganjur augmented reality application. By emphasizing the importance of experience from both the maker and the user, the application is certainly able to provide a more complete picture when compared to the maker or user who has no experience, especially in this augmented reality technology.

The results of hermeneutic analysis are the process of understanding contextual experiences from the designer's point of view, that is, the designer already owns and knows the uses of augmented reality technology, so that the designer indirectly describes the condition of the augmented reality technology only in an outline according to his personal experience. This can be

clearly conveyed through the unavailability of certain conditions that are able to provide clear understanding and meaning to users about augmented reality technology, because not all users have used augmented reality technology.

The results of hermeneutic analysis as a process of understanding contextual experiences from the user's side, namely users cannot understand in detail about this augmented reality technology due to a lack of information on design elements that are able to describe each stage from start to finish using augmented reality technology.

The solution that the author can offer to hermeneutical analysis as a process of understanding this context experience is the need for some kind of notification or additional

window containing complete information about what augmented reality technology is, complete with each stage of use from the beginning to the end of using the application. In the design elements, you can add some kind of text or note that can direct the user to access or read the information first, with the aim that the user also has the same experience in understanding and interpreting the design elements displayed in the main menu user interface design for the Baleganjur augmented reality application.

Broadly speaking, Paul Ricoeur's hermeneutic process flow used as a method for analyzing design elements in the main menu user interface for the Baleganjur augmented reality application can be described as follows.

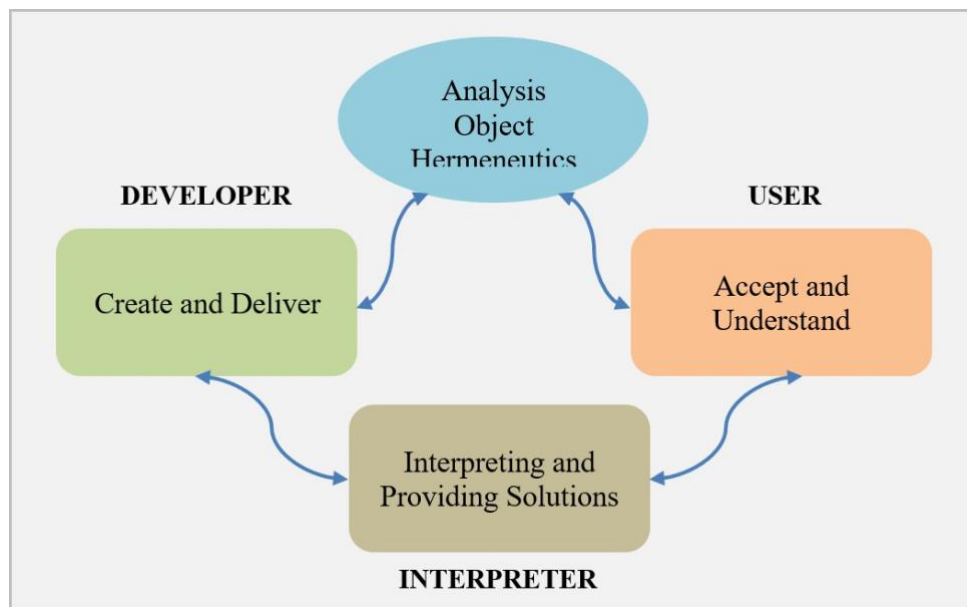


Figure 3. Analysis Process Flow. (source: author, 2023)

Based on the analysis process flow above, it can be explained that there are four entities that are interconnected in the analysis process flow, the four entities consist of the object of analysis, maker, user, and hermenet as interpreter, in this study the interpreter in question is the author. Paul Ricoeur's hermeneutical analysis emphasizes three basic things, namely the process of understanding meaning, the process of understanding interpretation, and the process of understanding experience. Through this analysis, it can be described that each entity has its own role which is related to one another. In accordance with the results of the analysis and the depiction of the analysis process flow above, hermenet has an important role in uncovering the meaning and

understanding of the design elements in the user interface design display for the Baleganjur augmented reality application, both from the maker's side and from the user's side. So that through the results of the hermeneutic analysis that has been submitted, it is hoped that it can provide meaning and understanding as a basis for reducing uncertainty in interpreting and understanding an application user interface design display, especially in the application of applications based on augmented reality technology.

CONCLUSION

Based on the research that has been done on the

user interface design elements for the main menu of the Baleganjur Augmented Reality application, researchers have succeeded in finding the meaning and understanding stored in these design elements. This study shows that the design elements in the Baleganjur Augmented Reality application have the goal that users can understand clearly and in detail regarding the implementation of augmented reality technology itself, but there is some information that is not conveyed properly to users, causing uncertainty in understanding the design elements as a whole. thorough.

In hermeneutical analysis, both in understanding meaning, understanding interpretation, and understanding experience, hermenet plays an important role in uncovering the meaning and understanding of the design elements in the main menu user interface design elements of the Baleganjur Augmented Reality application, both from the maker's side and from the user's side.

Through the results of Paul Ricoeur's hermeneutical analysis, it can be concluded that researchers as hermeneutics have an important role in interpreting and offering solutions, which can later be used as references for repairs and refinement of design elements in application user interfaces, so that these design elements can convey meaning and understanding in a meaningful way. comprehensive and detailed to the user.

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