COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

ANDROID-BASED TEXT-TO-SPEECH SOFTWARE FOR SELECTED PERSONS WITH DISABILITY

A Thesis
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In Partial Fulfilment of the Requirements for the Degree
Bachelor of Science in Computer Science

By:

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COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

CERTIFICATION

This thesis entitled **"Android-Based Text-To-Speech Software for Selected Persons with Disability"**, prepared and submitted by **Angelie Mae A. Ajoste** and **Joanne A. Abrida** in partial fulfillment of the requirements for the degree **Bachelor of Science in Computer Science**, has been examined and recommended for Oral Examination.

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Abstract

The aim of the study is to develop Text-to-Speech Software using Android platform to be able help selected persons with disabilities such as persons with speech impairment and dyslexics. It is a tool that can be used to help persons who have trouble reading and speaking. New technology is also allowing people with speech impairments to communicate properly. The main objective of this study is to design and develop an android software that converts text into spoken voice output for persons with speech disability and dyslexics. Specifically, this study attempted to answer the following questions: What are the users and IT Experts' evaluation of the Android-Based Text-To-Speech Software for Selected Persons with Disability based on the Software Quality Evaluation standards such as Functional suitability, Performance efficiency, Compatibility, Usability, Reliability, Security, Maintainability and Portability? And what is the evaluation on the level of acceptability of the IT Experts' in terms of the following standards: Aesthetic Value, Interactive Value, Content, Functionality and Performance? The descriptive method of research was used in this study. The users and IT experts' evaluation of Software Quality in terms of: Functional suitability evaluated as 4.13 with a verbal interpretation of Very Good. Performance Efficiency evaluated as 4.28 and 4.0 with a verbal interpretation of Excellent (E) and Very Good VG. Compatibility evaluated as 4.28 and 4.10 with a verbal interpretation of Excellent (E) and Very Good (VG). Usability evaluated as 4.23 with a verbal interpretation of Excellent (E). Reliability evaluated as 4.39 and 4.20 with a verbal interpretation

of Excellent (E). Security evaluated as 4.16 with a verbal interpretation of Very Good (VG). Maintainability evaluated as 4.28 and 4.16 with a verbal interpretation of Excellent. The overall Software Quality evaluation of users and IT experts is 4.29 and 4.14 with a verbal interpretation of Excellent (E) and Very Good (VG). IT Experts' Evaluation on the Levels of Acceptability in terms of: Aesthetic Value was interpreted as Acceptable (A) with a weighted mean of 4.15. Interactive Value was interpreted as Highly Acceptable (HA) with a weighted mean of 4.45. Content was interpreted as Highly Acceptable (HA) with a weighted mean of 4.35. Functionality was interpreted as Highly Acceptable (HA) with a weighted mean of 4.28. Performance was interpreted as Highly Acceptable (HA) with a weighted mean of 4.40 respectively. The overall evaluation in levels of acceptability of IT experts is Highly Acceptable (HA) with the average weighted mean of 4.33.