

Title: Spelling Game using Scene Text Recognition and Speech Synthesis

Authors: Melmar Dumaran, Donica Angel Linaza, Zoren Esnardo

ABSTRACT

This was paper derived from the two technologies which are the Scene Text Recognition and Speech Synthesis. Researchers integrated the text to speech and writing recognition in applying the whole concept of the mobile game application. Text to speech, applied to sound dialectal sequences, can make easier automatic transcription of oral text. The Scene Text Recognition (STR) is significantly more challenging because of extreme font variability, uncontrolled viewing conditions, and minimal language context. One of the importance of the mobile game is the uniqueness and originality. The uniqueness of the game is where the researchers applied the most powerful technology that can be used in the daily lives. Researchers studied the two technologies and found out that these two technologies are used in creating the game. The aim of this game was to enhance spelling and vocabulary skills of the children and proper user. It demonstrated also the importance of learning the basic into difficult parts of the words. Learning the basic writing in Android, researcher uses MyScript tool to integrate the Spelling Game application, this is the digital handwriting recognition in which the user will learn to write in practical way. The researchers conducted this whole game application because in a real life situation users use paper and pencil in writing the spelled words. Since our technology is evolving, researchers used this kind of technology to be more interesting, responsive and entertaining in playing the game. In every game level it performs different role activities. The Beginner level has basic words to be spelled by the user same as the other level, but this level, it must the user pertaining more points to unlock the Intermediate level and also the same in this game to unlock the Advanced level. The built in Text to speech (TTS) in Android Studio will call the random words to be spelled and the user will input into the write pad using the writing recognition then initialize the process of display output in which the spelled words are correctly entered

Keywords: Scene Text Recognition, Speech Synthesis, Android application, linguistic variation, English Language