

ABSTRAK

Komunikasi adalah kebutuhan yang sangat penting dalam kehidupan manusia. Sebagai mahluk sosial, kebutuhan manusia akan komunikasi sangat tinggi. Dengan adanya teknologi telepon, pesan singkat, dan *e-mail* sangat membantu terwujudnya hubungan komunikasi, terutama komunikasi jarak jauh. Komunikasi jarak jauh sangat marak digunakan dalam berbagai urusan. Salah satunya dengan menggunakan teknologi pengiriman dan penerimaan pesan singkat atau *Short Message Service* (SMS). Penggunaan SMS dengan menulis dan membaca pesan banyak memiliki kekurangan khususnya disaat pengguna sedang tidak dapat mengoperasikan *smartphone*-nya. Contohnya saat berkendara, SMS yang diterima akan sulit untuk baca maupun dibalas.

Untuk menanggulangi masalah tersebut dirancang suatu Sistem Pesan Via Suara yang membantu menanggulangi masalah tersebut. Dalam Tugas Akhir ini dibangun konversi teks ke suara pada penerimaan pesan yang diterima dari aplikasi pesan singkat. Sistem ini merupakan salah satu bagian penting penyusun Sistem Pesan Via Suara. Sistem ini menggunakan metode Aryanata yang membantu dalam memecah kata menjadi suku kata pada teks pesan yang diterima. Hasil keluaran algoritma Aryanata akan digunakan sebagai pacuan dalam membangkitkan sinyal suara dari pesan yang diterima.

Berdasarkan hasil pengujian, akurasi pembelahan suku kata pada kata dasar dengan metode Aryanata mencapai 92.22% sedangkan pada kata berimbuhan 96.67%. Dibandingkan dengan metode FSA, akurasi pembelahan suku kata pada kata dasar adalah 88.68%, sedangkan pada kata berimbuhan 98.81%. Untuk waktu rata-rata proses pembelahan suku kata dengan algoritma Aryanata 0.1682 detik sedangkan Metode FSA 0.0629 detik.

Kata Kunci : *Text To Speech*, Android, SMS, Suku Kata Indonesia, FSA.

ABSTRACT

We cannot avoid that communication has become a highly needed thing by human since many years ago. Communication plays an important role in human's life, especially in these days. There are so many ways of how to communicate with other people, either by direct communication or using media(s). In a special case, such as for those who live separated by miles, they really need media to communicate with each other for sure. Before many type of media were born such nowadays, there only phone and Short Message Service (SMS) were popular among people and then used by them. SMS is operated by writing and reading the message. It looks very simple. However, in the daily life, it's not that efficient actually. For example, when somebody is on driving and he suddenly receives a message, he cannot directly know the content of that message without look at it first. It is sure related to the safety of that driver.

Based on that problem, writer/researcher tries to solve the problem by finding the solution of how people can easily know the content of a message they received without look at it first. Writer/researcher has found a system which is called VoiceOnMessage. In this research, message/text is converted into voices when a phone receives text/message from Short Message Service (SMS) application. This system is one of important parts that create VoiceOnMessage. Aryanata's method is applied on this system which helps to break down the words into syllable on the message received by user/recipient. The algorithm result from Aryanata's method will be used as a reference to build voice of signal from received message.

As the result, by using Aryanata's method, the accuracy of breaking down the words from their original word reaches up to 92,22%. Meanwhile, for the words with preposition reaches until 88, 68%. In the other hand, by using FSA's method, the accuracy of breaking the word down from its original word only reaches 96,67%. And the word with preposition reaches the same point with Aryanata's method at 98.81%. In addition, the time that is successfully got from breaking down process is 0, 1682 seconds.

Keywords: *Text to speech, Android, SMS, Syllable of Bahasa Indonesia, FSA*