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WINGS TO YOUR THOUGHTS.....

GRANDILOQUENCE-AN ANDROID SUCCOR TO RHETORICIAN

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Abstract: Things are changing fast in the world of smart phones. Smart phone to our hearts and eyes, it brings joy and thrill, to our brains and minds, Creative drill. Android App has become an inevitable part of our day to day life .Android Apps are used to perform tasks in our day to day life especially by youngistans. So, we decided why not we develop an application that will implement the function of Manual Mic in a mobile phone. For this, we are going to use multimedia framework which is provide by android. Using this framework the voice input is taken and simultaneously without any delay the voice output is given. The voice input can be given through the handset or headset. And the output is directed to the mobile speakers.

Keywords: Android, Mic, Voice.

1. INTRODUCTION

Mobile platform is the platform of future. Mobile phones have become inherent part of our life [12]. With the new technology the mobile phones have become astute. Because of this ingenious nature of the mobile phones, there is a double digit growth in worldwide smart phone ownership [5].

Android is built over the open Linux Kernel [7]. Furthermore, it uses a virtual machine that has been designed to optimize memory and hardware resources in a mobile environment. Android is can be liberally extended to integrate new cutting edge technologies as it is open source. The evolution of this platform will continue as the developers work together to build creative mobile apps, the evolution of this platform will go on. [1-2].

Mobile software development has evolved over the time. Avoiding failures of other platforms, Android has emerged as a new mobile development platform, building on past successes [11]. Android is designed to support the developer to write creative applications, the platform is open source and developers rejoice many advantages over other platforms [8].

The proposed system provides the facility of hand mic to the user. The users can give their voice input through their headset or blue-tooth which is then directed out through the mobile speakers. The most important application of this app is that it can be used by the lecturers, any tutor and others instead of a head mic or a hand mic. This saves

their energy and cost. It eliminates the dependency of a user on the physical mic [6].

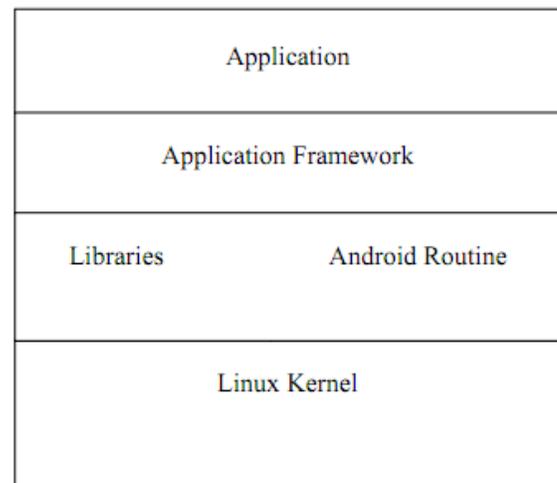


Figure 1: Android Architecture

2. RELATED WORK

A. Tianhe Zhang proposed voice search application

It includes a technique for improving the performance of automated voice search services intended for mobile users accessing these services over a range of portable devices [3]. Voice search is implemented as a two stage search procedure where automatic speech recognition (ASR) generates string candidate system are re-scored so as to

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find the best matching entry from a potentially large application specific database.

Limitations

- 1) Language pronunciation Barrier
- 2) It is not helpful for dumb people

B. Hart proposed A*algorithm

It is based on a greedy best-first search algorithm. A*algorithm evaluates from starting location to destination location using heuristics person. The heuristic function is divided into two functionalities: the path-cost function and the heuristic estimate function [4]. The path-cost function is the cost from starting location to the current location and the heuristic estimate function is the estimation cost from current location to destination location.

Limitation

- 1) Time consuming.

C. Clear Record Premium

Clear record brings the unique feature of suppressing ambient noise, inadvertently captured while recording. Clear record also features the ability to control play-speed without modifying the pitch quality along with Advanced Audio Coding (AAC) compression technology. Ambient Noise Reduction (ANR) feature allows to record conversation in noisy environment –street, train, classroom or an airplane while still maintaining the clear voice.

D. Microphone

This very simple app just sends audio from the mic to the speaker, plug it into your computer using a 3.5mm male to male headphone jack and you get a free microphone.

Limitation:

1. Delay
2. Low Pitch Quality

3. PROPOSED SYSTEM

In our proposed system we are going to use Media Component to capture and play the sound. The android framework for multimedia supports capturing and encoding of audio formats [10]. This makes easy to integrate audio in our application. The audio can be recorded using Media Recorder APIs if the hardware supports it [13].

A new instance for android media. Media Recorder is created. The audio source is set using Media Recorder. AudioSource.MIC. The output file format and name is set using MediaRecorder.setOutputFormat() and Media Recorder.setOutputFile() respectively. The audio is encoded using MediaRecorder.setAudioEncoder().

MediaRecorder.start() and MediaRecorder.stop() is used start and stop the capture of sound. The captured audio is processed.

In order to play the audio simultaneously MediaPlayeris used. The audio is streamed and when the MediaPlayeris in idle state, it is initialized using setDataSource() and its prepared using prepareAsync(). when it is done preparing we can play it using MediaPlayer.start() and stop it using MediaPlayer.stop(). At the lastRelease() method can be called release the memory which was assigned to it.

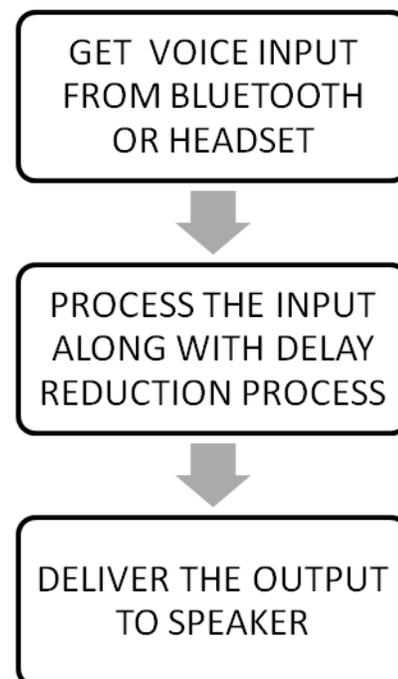


Figure 2: Flowchart for application

4. CONCLUSION

Our proposed system takes the mobile phone to a step ahead to be used as a hand mic. Our app is simple, easy to use and readily available in pockets whenever there is a need to address people in a gathering. It can also be used by the lecturers or tutors to teach a gathering in a hall. This eliminates the dependency of the person on a head or hand mic. It can also be used by singers in concerts. As a future enhancement it can be connected to speakers via Bluetooth to output the sound using speakers.

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