



Speech to Text

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Abstract — For the past many decades, designers have processed speech for a good kind of applications starting from mobile communications to automatic reading machines. Speech recognition reduces the overhead caused by alternate communication strategies. Speech has not been used a lot of within the field of physical science and computers thanks to the complexness and kind of speech signals and sounds. However, with trendy processes, algorithms, and strategies we will method speech signals simply and acknowledge the text. During this project, we are about to develop an on-line speech-to-text engine. The system acquires speech at run time through an electro-acoustic transducer and processes the sampled speech to acknowledge the expressed text. The recognized text are often keep in an exceedingly file. We have a tendency to be developing this on robot platform victimization eclipse bench. Text to Speech (TTS) which speaks the text in different languages. We are giving input to TTS and you can convert your text into speech. After completion of the conversion, you can playback or create the sound file

Keywords- Google API, Audio Recognition System, TTS.

I. INTRODUCTION

Speech recognition technology is one from the quick growing engineering technologies. It variety of applications in numerous areas and provides potential edges. Speech Synthesizer API speech-to-text-conversion could be a great tool for group action individuals with hearing impairments in language settings, e. g. counseling, interviews or conferences. Nearly two hundredth individuals of the globe area unit stricken by numerous disabilities; the speech recognition systems in those explicit cases offer a big facilitate to them. Our project is capable to acknowledge the speech and convert the input audio into text. It permits a user to perform operations like to form meeting notes, to form lecture notes, to schedule appointment. Android has had very robust text-to-speech (TTS) functionality. User send text as input and convert it your text into speech

II. LITERATURE REVIEW

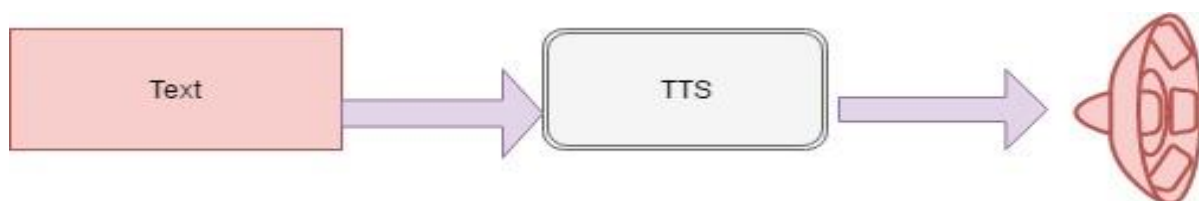
SR.N O	YEAR	PAPER NAME	AUTHORS	DESCRIPTION
1.	2014	An Introduction to Speech and Speaker Recognition	Richard D. Peacocked and Daryl H. Graf Bell-Northern Research	Being able to talk to your laptop computer, and have it acknowledge and perceive what you say, would offer a snug and natural variety of communication. It'd scale back the number of typewriting you have got to try to, leave your hands free, and permit you to maneuver aloof from the terminal or screen. You ought to be within the line of sight of the terminal.
2.	2014	Implementing Thai Text-to-Speech Synthesis for Hand-held Devices	Nipon Chinathimatmongkhon, Atiwong Suchato, Proadpran Punyabukkana	To expand its utilization over platforms with completely different procedure capacities, this paper represented a true implementation of Thai TTS system for hand-held devices. The system consisted of 2 half's: the text analysis half and therefore the speech synthesis part. To beat a problem on the restricted resources of the devices, a rule-based technique was chosen for the text analysis whereas the speech synthesis half was deployed during a model-based approach, specifically Hidden Andre Mark off Models, rather to the concatenate one. Parameters of the synthesis half were experimented with to cut back the procedure time. The execution time and subjective Mean Opinion Scores (MOS) are measured..

3.	2016	Recent Advances in Speech Processing	I. Mariani	The aim of this paper is to allow non-specialists in Signal process an outline of recent advances within the domain of Speech Recognition. It also can be thought-about associate degree introduction of the papers that may be conferred therein field throughout this conference; particularly those presenting latest results on massive vocabulary, continuous speech recognition systems.
4.	2014	Review of Text to Speech Conversion Method	POONAM.S.SHETAKE, S.A.PATIL, P. M JADHAV	Text to speech is converter applications. This application is more helpful in banking, toys and many other applications like checking marks, railways, aid to the physically challenged persons, language education and fundamental and applied research.

III. PROPOSED SYSTEM

The system acquires speech at run time through a mike and processes the sampled speech is convert text. In meeting notes the system each meeting note means that Title, Time, and Notes wherever speech knowledge are going to be regenerate to text as content. Google APIs could be a set of application programming interfaces (APIs) developed by Google which permit communication with Google Services and their integration to alternative services. Samples of these embrace Search, Gmail, Translate or Google Maps. Third-party apps will use these APIs to require advantage of or extend the practicality of the prevailing services.

It's merely adds a checkbox with title once speaking a sentence to feature a task. In appointment is chosen venue, time and task are going to be analyzed from speech. In Text To Speech TTS engine convert Text to Speech



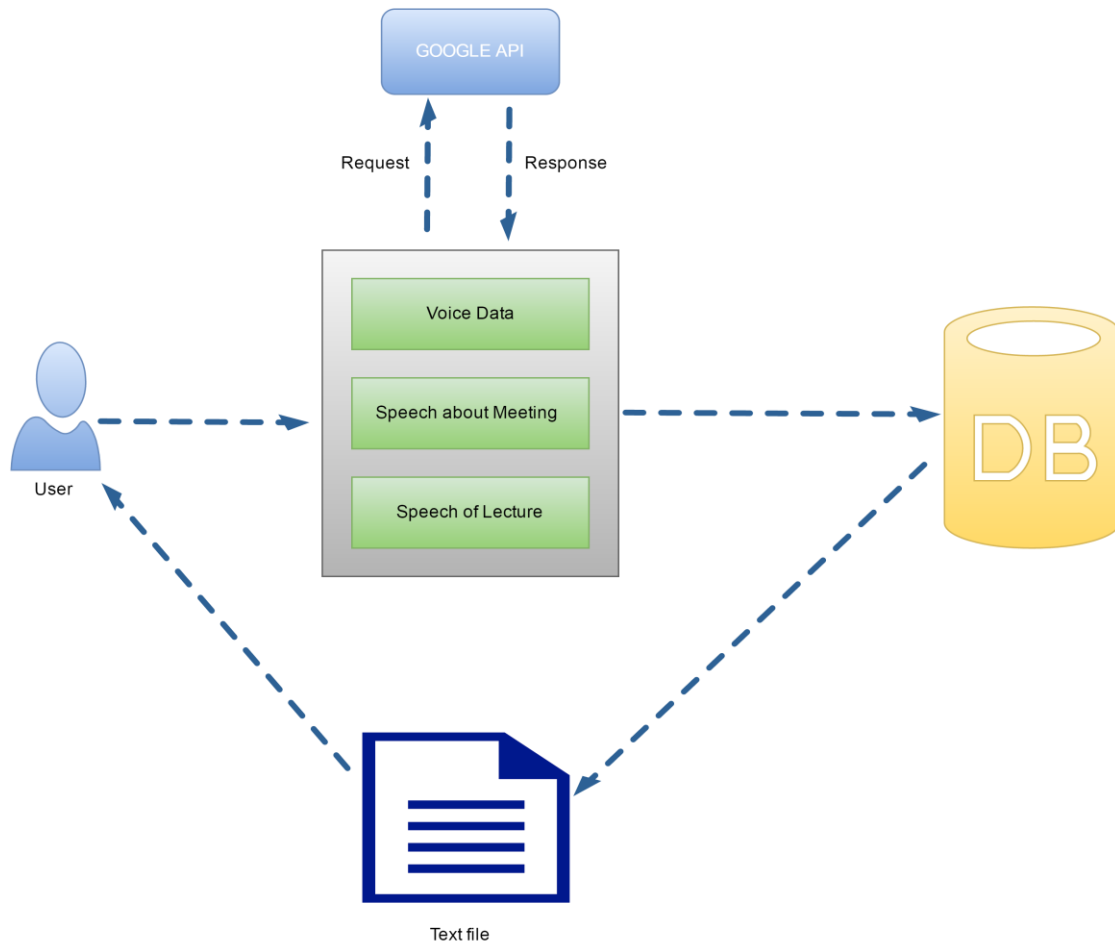


Fig 1: Architecture diagram of proposed system

IV ADVANTAGES

- Requires less consumption of your time in writing text.
- Organizations - will increase productivity, reduces prices and errors.
- Lower operational prices.
- Advances in technology can permit customers and businesses to implement speech recognition systems at a comparatively low price.

V MATHEMATICAL MODEL

Let S is the Whole System Consist of

$S = \{U, D, ASR, TS, A, O\}$.

U = User

$U = \{u_1, u_2, \dots, u_n\}$

D = Dataset.

$D = \{d_1, d_2, \dots, d_n\}$

ASR= Automatic Speech Recognition

A=Audio

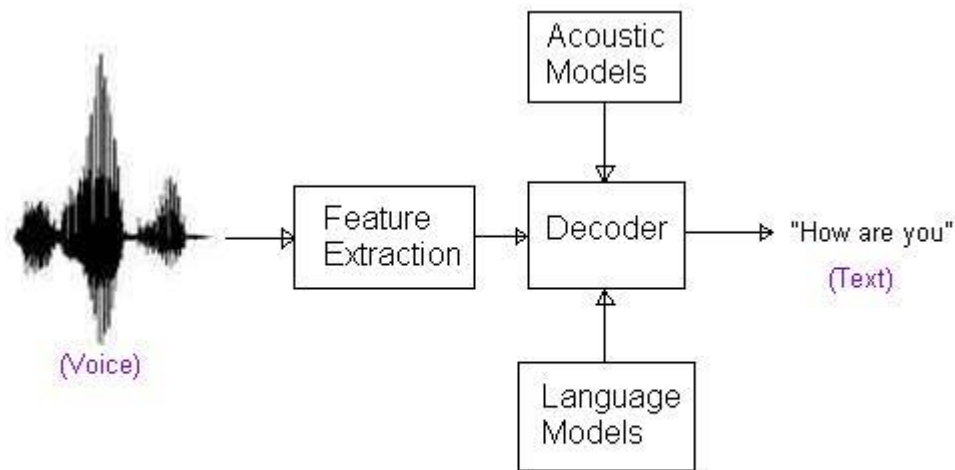
TS=Text to speech

O = Output.

VI.ALGORITHM

Steps of Algorithm

- pre-processing (which includes speech/non-speech segmentation,)
- feature extraction,
- decoding, the actual recognition employing an acoustic and language model as well as a dictionary,
- result post-processing.



Speech Recognition System

VII. RESULT



VIII.CONCLUSION

This Speech-To-Text application of speech recognition started with a quick introduction of the technology and its applications in several sectors. The project a part of the report was supported software system development for speech recognition. At the later stage we mentioned completely different tools for transportation that concept into sensible work. Once the event of the software system finally it had been tested and results were mentioned, few deficiencies factors were brought ahead. Once the testing work, blessings of the software system were delineated and suggestions for any sweetening and improvement were mentioned

REFERENCES

- [1] Parwinder pal Singh, Er. Bhupinder singh, "Speech Recognition as Emerging Revolutionary Technology", International Journal of Advanced Research in Computer Science and Software Engineering, 2012
- [2] Yu-Shuo Chang, Shih-Hao Hung, Nick Wang and Bor-Shen Lin, "CSR: A Cloud assisted Speech Recognition Service for Personal Mobile Device," IEEE International Conference on Parallel Processing(ICPP), 2011.
- [3] Abdullah Saleh Alqahtani, Robert Goodwin, "E-commerce Smartphone Application," (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 3, No.8, 2012
- [4] Eric De Thae, Nils Franssens, Stijn Helsen "Smartphone power consumption", 2010
- [5] Ken Hinckley, Jeff Pierce, Mike Sinclair and Eric Horvitz, "Sensing Techniques for Mobile Interaction," ACM Symposium on User interface. software and technology, 2000
- [6] Richard D. Peacocke and Daryl H. Graf, "An Introduction to Speech and Speaker Recognition," IEEE Computer Society Press Los Alamitos, 1990.
- [7] Tapas Kumar Patra, Biplab Patra, Puspanjali Mohapatra, "Text to Speech Conversion with Phonematic Concatenation" International Journal of Electronics Communication and Computer Technology (IJECCCT) Volume 2 Issue 5 (September 2012)
- [8] Xinxin Wang¹, Feiran Wu¹, Zhiqian, "The Application of Speech Recognition in Radiology Information System", IEEE 2010.
- [9] Douglas Vail Manuela Veloso, "Learning from accelerometer data on a legged robot", Computer Science Department Carnegie Mellon University Pittsburgh, PA 15213 USA.
- [10] Nipon Chinathitmongkhon, Atiwong Suchato, Proadpran Punyabukkana, "Implementing Thai text-to-speech synthesis for hand held devices", Proc Of ECTI-CON 2008.
- [11] William Enck, Damien O'Connell, Patrick McDaniel, and Swarat Chaudhuri, "A Study of Android Application Security", The Pennsylvania State University, 2011
- [12] Sauvik Das, LaToya Green, Beatrice Perez, Michael Murphy "Detecting User Activities using the Accelerometer on Android Smartphones" 2010.