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Social Robot for Kids Using A Smartphone

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ABSTRACT

The majority of autistic children experience social anxiety while interacting with other children and joining them. They dislike social settings where they will be the centre of attention or make others proud, such as asking or answering questions in class. They may even find it difficult to speak with their parents at times. The parents of these children are concerned. They never express their emotions or thoughts. Children are exceedingly fragile to handle; placing pressure on or forcing them to communicate with others may be detrimental to their mental and physical wellbeing. They require a friend with whom they can talk, express themselves, learn, and so on.

"Social Robot" is the title of this paper. It can help all youngsters improve their social-emotional and communication skills through relatively brief daily contact. Social Robot allows these youngsters to enjoy their childhood by teaching them to study, express themselves, comprehend, and so on. Social robots can help children with social anxiety and autism.

Keywords: Social robots, Artificial Intelligence, Autism kids, human-Robot Interaction,

INTRODUCTION

This article investigates the specific characteristics of our emotional interaction with mobile phones, as well as how they relate and contrast with the concurrent emergence of social (and sociable) robots. The scope of this paper is not a detailed discussion of methods for generating artificial emotions and building robots, but rather how humans create their own personalised social robots by appropriating and manipulating a specific machine in their daily lives to express their emotions and manage themselves. From lift sensors that respond to presence to autonomous humanoid machines that execute complex home or industrial duties, the phrase "social robot" has multiple definitions with seemingly endless limitations. Social robots are created utilising artificial intelligence and are frequently outfitted with sensors, cameras, microphones, and other devices. We are working on the most import module i.e Speech Recognition. Voice is the most basic, widespread, and efficient way for individuals to engage with one another. Speech technologies are now widely available for a restricted but fascinating set of tasks. This technology enables machines to respond to human voices appropriately and dependably, as well as provide useful and valued services. People will prefer such a system since conversing with a computer by speech is faster than using a keyboard. Because spoken language dominates human communication, it is reasonable for people to expect speech interactions with computers.

This can be accomplished by establishing a speech-to-text system, which allows a computer to interpret voice requests and dictation into text. Speech-to-text conversion is the process of turning an auditory signal acquired using a microphone into a collection of words. The recorded data can be utilised to create documents.

EXISTING SYSTEM

A speech recognition technology already exists that turns spoken words into printed text. It consists of multiple processes, the first of which is to capture audio input and preprocess it to improve quality. After that, the system use acoustic modelling to extract speech elements including phonemes, words, and sentences. Based on context and grammar, language modelling is used to anticipate the most likely sequence of words. Finally, the system outputs the transcribed text. Speech recognition systems have come a long way, achieving high accuracy and finding use in transcription services, voice assistants, and accessibility solutions. They process and interpret data using techniques such as Hidden Markov Models (HMM) and Deep Neural Networks (DNN). By taking word probabilities into account, language models enhance transcription accuracy.

PROPOSED SYSTEM:

This project is created and developed with that fact in mind, and a small amount of work is done to attain this goal. It has a variety of uses in several fields and may bring benefits. Nearly 20% of the world's population is disabled, with many of them blind or unable to use their hands effectively. In certain circumstances, the speech recognition technology comes in handy, allowing individuals to exchange information with others by controlling a

computer by voice input. Consider how many people around the world are unable to use their hands, making typing difficult. Our initiative is for folks who can't type or see, as well as for those of us who are lazy.

ACCURACY

In recent years, the accuracy of speech-to-text modules has greatly increased, making them highly trustworthy instruments for turning spoken words into written text. These systems can now attain astonishing levels of accuracy because to advances in machine learning and natural language processing techniques. It is crucial to remember, however, that accuracy might still vary depending on a variety of circumstances. The quality of the audio input is an important component that influences accuracy. In general, clear and high-quality audio recordings produce more accurate transcriptions than ones with background noise, poor loudness, or distortion. Additionally, the presence of dialects, speech changes, or speaking pace can all have an impact on the system's accuracy.


**ACCURACY**
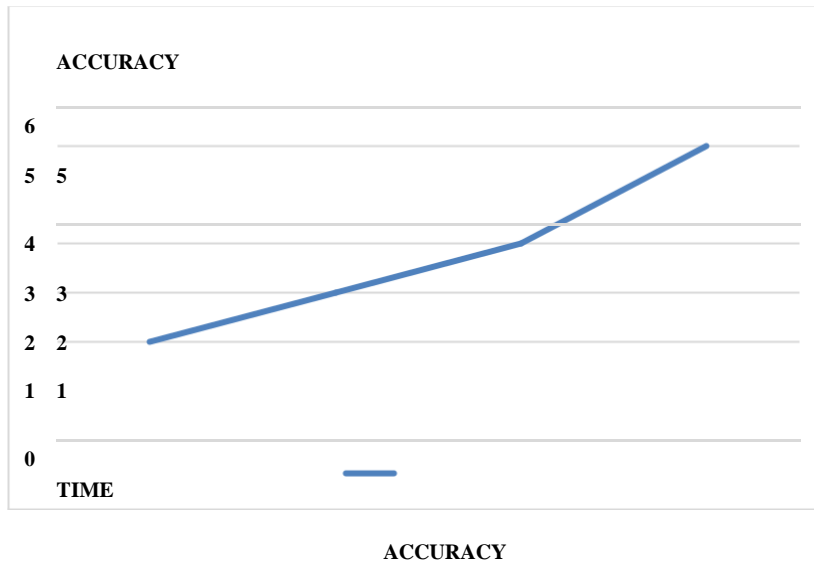
SAVE LOTS OF TIME

Speech-to-text technology has proven to be a fantastic time-saver. It eliminates the need for human transcription or typing by transforming spoken language into written text, allowing for speedier and more effective communication and documentation. Speech-to-text systems can quickly convert spoken words into written form, decreasing the time and effort required for proper transcription of interviews, meetings, or lectures. Furthermore, in a variety of professional environments where speed is critical, such as customer service or data entry activities, speech-to-text technology allows users to quickly dictate information, reducing the need to type down every word. This time-saving feature of speech-to-text technology not only increases productivity but also allows individuals to focus on other important tasks, resulting in enhanced efficiency and effectiveness at work.
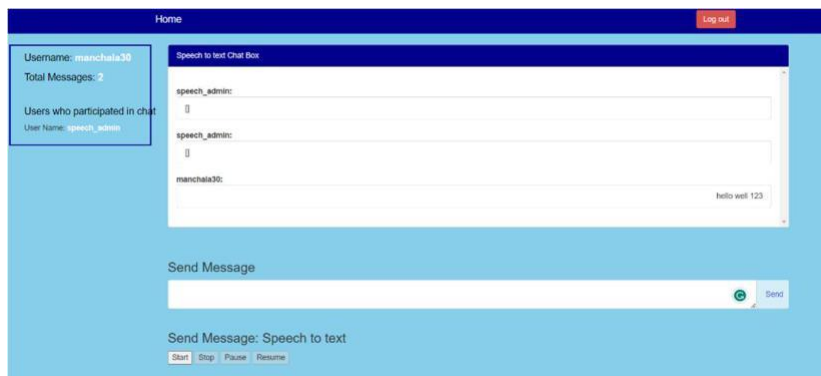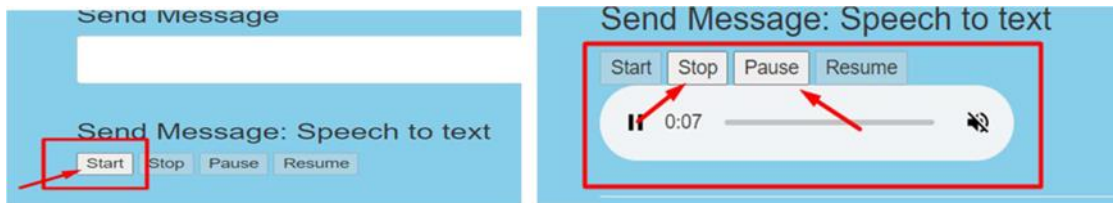
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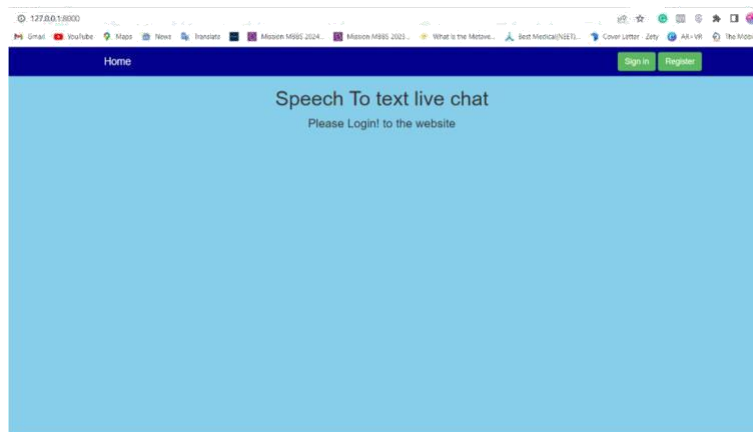
SIGN UP PAGE
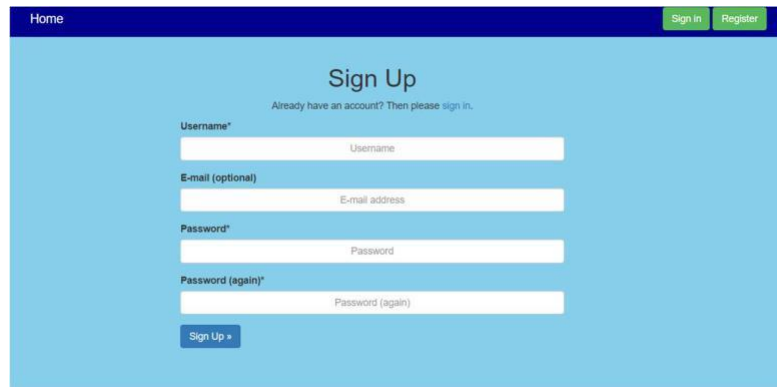
MAIN PAGE

INPUT AUDIO

RESULTS PAGE

CONCLUSION

Speech Recognition will revolutionise how people engage with smart devices and, ultimately, differentiate the next technologies. Almost all smart devices on the market today are capable of speech recognition. Many aspects of daily life can benefit from these systems. This technology will usher in dramatic changes in the current world and serve as a pivotal technology. Within five years, voice recognition technology will be so widespread in our daily lives that service environments missing this technology would be regarded substandard

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