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Accelerate Autism Peoples to Expostulate Psychopathology Using Android

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Abstract:

Accelerate Autism Peoples To Expostulate Psychopathology Using Android is the easy way to solve the difficulties of the Autism attacked peoples and the problem is if they have to understand something is difficult before while who speak more than one times to that person and this is waste of time and it's not possible to all times. In this express world there is no time to take care of these peoples and also in public areas they have the facing the problems like kidnapping, disappeared from home etc. Still they face the problems in public and other areas so, our idea is would might help most to drive those life as like a normal person in world. Here we create an mobile application to solve the problem there is no need to talk more than one times to that person (e.g.) if anybody ask question to that disabled person that Speech recognized by Google Speech Engine and convert as a text and depends upon a question that application get answer from database to reply by voice technique to that person.

Keywords- **ASD ,GSE ,TTS ,GPS ,GPRS ,ECHOLALIA.**

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I. INTRODUCTION

Autism Spectrum Disorder (ASD) is a cognitive disorder caused due to abnormal functioning of brain impacting development activities. Over the time different techniques and methods have been in practice to teach and communicate with people suffering from ASD. Usability of smart phone applications for disabled people gains great attention of modern researchers. Identifying the areas of autism therapy that can be enhanced by using a android mobile device to facilitate autistic children's learning experience. At an affordable price range, the simple mobile device has an immediate cause and effect response that enables these students to be more independent during the learning process. These key factors make this an ideal supplement for autism therapy in the classroom and for skill reinforcement at home. Our study aims to explore the most effective application design areas using a android device as an instructional tool for autistic children. This project presents and realizes a new and unique perspective for autism people i.e. virtual community. the integration of nature experience activities can significantly enhance the language of autistic children, self-reflection and naturalist intelligence, logical, spatial, musical, interpersonal intelligence also effectiveness. The app provides a picture-based testing for learning, it popup the variety objects/picture immediately on the screen, and provides pronunciation to improve autistic children's language perception skill. Using this android application virtual communities and interactive simulation are better able to help patients to achieve improved therapeutic effects and adapt to real life.

To develop secure and safety application for autism impeded peoples there are different types of autism peoples while here

especially we develop a project for ECHOLALIA impeded peoples.

II. PROBLEM DEFINITION
A. Related works

1. A novel design, implementation, and first evaluation of a triadic, collaborative game involving the humanoid robot KASPAR playing games with pairs of children with autism[1].
2. Children with autism have impaired social communication and social interaction skills which make it difficult for them to participate in many different forms of social and collaborative play[2].
3. KASPAR operates fully autonomously, and uses information on the state of the game and behavior of the children to engage, motivate, encourage and advise pairs of children playing an imitation game[3].
4. Results are presented from a first evaluation study which examined whether having pairs of children with autism play an imitative, collaborative game with a humanoid robot affected the way these children would play the same game without the robot[4].
5. These are encouraging and provide a proof-of-concept of using an autonomously operating robot to encourage collaborative skills among children with autism[5].

B. System design:

- In our system, it overcomes using mechanical robot called (Android) if anybody ask question to that disabled person that Speech recognized by Google Speech Engine and convert as a text and depends upon a question that application get answer from database to reply by voice technique to that person.(e.g. Fig No.1)
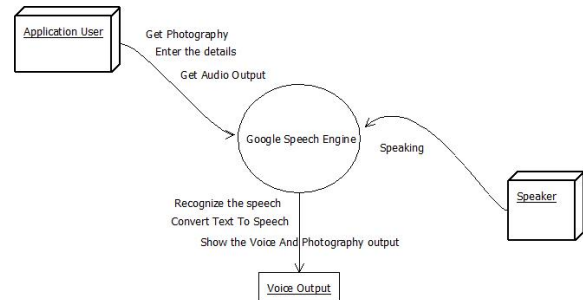

Fig No.1 Dataflow Diagram

- Our idea is would might help most to drive those life as like a normal person in world.

1. Advantages
- It can be accessing anywhere and anytime since (Android) mobile phones are portable.
- No Need to speak many times for to understand that peoples
- It repeats many times so easy to understand everything
- Application stored the user database so it retrieved fast to access.

III. IMPLEMENTATION
A. Register with Database
Here we have to enter the details of the autism impeded peoples like Name, Father Name etc….and some personal details of that person it can be stored in to the database.(e.g. Fig.No.2)

Fig.No.2 Register with Database
B. Speech and Text Conversion

Speech to text conversion is the module using to analyze the speech and convert the speech to text using Google speech Recognition engine (GSE) using internet and also convert the Database details to speech by using Text-To-Speech (TTS).(e.g. Fig No.3)
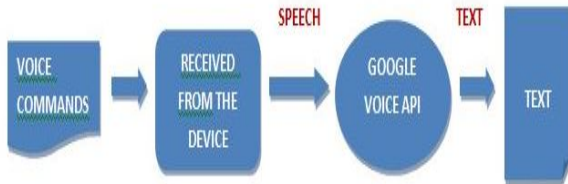

Fig No.3 Speech and Text Conversion

C.Reiterate the Details

Iterate the details which is use stored in the database repeatedly by using Google speech engine and also it repeated times that can set by our self while this is the way to express here moments easy to echolalia attacked peoples.(e.g. Fig No.4)

Fig No.4 Reiterate the Details
IV.TECHNIQUE IN PROPOSED SYSTEM
A. GPS Algorithm

It's important to note that AGPS will only work if the device has a GPRS (data) connection, normally using a 3G connection. The first time GPS signal attempts to track it has to download three sets of data (GPS satellite signals, almanac data, and ephemeris data) to calculate its position. Assisted GPS can help avoid this, solving the data connection issue by linking to a web-based internet server (known as an assistance server) that already holds the current satellite information. It can take anywhere from 30 seconds to a couple of minutes to acquire a signal. In the A-GPS

architecture, in addition to a digitized GPS signal, several pieces of assistance data are made available to the GPS algorithm, including:

1. Time stamp. This can be supplied through a cellular network and represents an estimate of the time at which the GPS signal capture was initiated. In a CDMA network, time stamps are typically accurate to within 100 ls or better. In a GSM network, time stamps can be off by several seconds.
2. Approximate location. Typically taken to be the location of the base station from which the mobile device receives assistance data, the approximate location serves as a coarse estimate of the receiver's location. In urban areas, the closest base station is typically within a few kilometers of the receiver. In rural areas, the closest base station can be tens of kilometers from the receiver.
3. Ephemeris information. This is easily obtained through a network, and can be used to compute satellite locations, velocity, and acceleration.
4. Satellite clock corrections. Satellite clocks drift over time. At any given time, clock error estimates can be obtained through the network.
5. Differential corrections. As with conventional differential GPS systems, this data is obtained from a reference receiver network and enhances system accuracy.
6. Navigation data. Navigation data is required for coherent processing of long durations of signal. With the right algorithms, transmission of navigation data from the base station to the mobile device can greatly enhance sensitivity.

V. OUTPUT

A. *Register user details with Database:*

Here we have to enter the details of the autism impeded peoples like Name, Father Name etc…and some personal details of that person it can be stored in to the database.(e.g. Fig No.5)
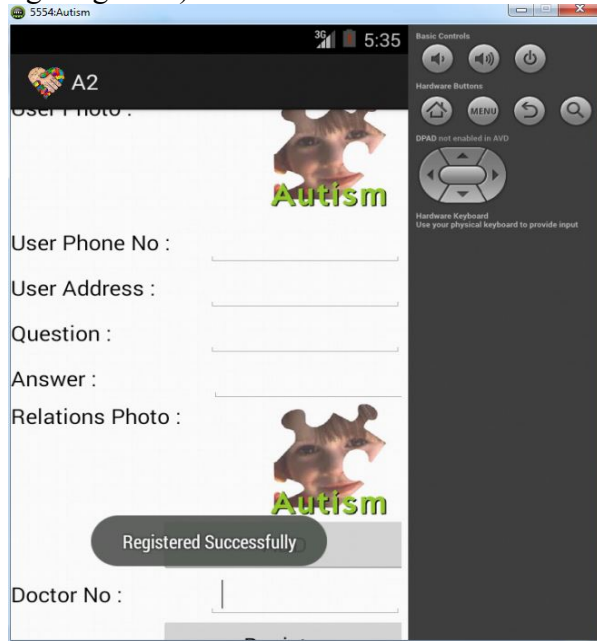

Fig No.5 Register user details with Database

B. *Reiterating the details:*

Iterate the details which is use stored in the database repeatedly by using Google speech engine and also it repeated times that can set by our self while this is the way to express here moments easy to echolalia attacked peoples. (e.g. Fig No.6)
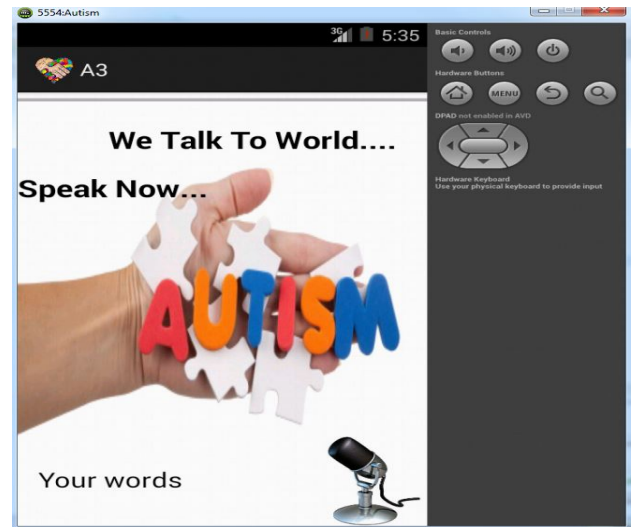

Fig No.6 Reiterating the details

VI. CONCLUSION

Here is the way to solve the problem who the person attacked by echolalia that has been solved by using android application, so autism attacked person is become a real society backend person.

REFERENCES

[1] A Review of Play Interventions for Children with Autism at School Article International Journal of Disability in Development and Education · 63 with January 2016 ReadsDOI: 10.1080/1034912X.2015.1111303

[2] Development of symbolic play through the use of virtual reality tools in children with autistic spectrum disorders: Two case studies Gerardo Herrera, Francisco Alcantud, Rita Jordan, Amparo Blanquer, Gabriel Labajo and Cristina De Pablo

[3] Design Issues on Interactive Environments for Children with Autism Kerstin DautenhahnAdaptive Systems Research Group, Department of Computer Science, University of Hertfordshire, College Lane, Hatfield, Herts AL10 9AB, UNITED

[4] ROBOTS AS SOCIAL ACTORS: AURORA AND THE CASE OF AUTISM Kerstin Dautenhahn *Department of Cybernetics, University of Reading, Whiteknights PO BOX 225, Reading RG6 6AY, UKMIT Artificial Intelligence Laboratory, 545 Technology Square, Cambridge, MA 02139, USA*

[5] COMPLEX LEARNING DIFFICNind, M (2000) Intensive interaction and children with autism. In S Powell (ed) *Helping Children with Autism to Learn (pp 39–49). London: David Fulton Publishers.*ULTIES AND DISABILITIES RESEARCH PROJECT (CLDD)