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Handwritten Recognition and Conversion from Text to Speech

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ABSTRACT

Graphology is a method for identifying, evaluating personality traits by handwriting. Professional Handwriting analysts are called Graphologists. Handwriting is oftenly called as Mind Writing or Brain Writing. It reflects human's thought-process through his handwriting Accuracy of Handwriting depends upon intellectual of the Graphologists. The proposed System focuses on developing a software for predicting human behaviour. In this paper a method has been proposed from baseline, slanting of letters, looping of letters, pen pressure and height of the letters. The system ueses OCR(Optical Character Recognisation) for recognize the character and convert the voice command.

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I. INTRODUCTION

There is a lot research work has done on Pattern Recognition which comes under Machine Learning, Artificial Intelligence. OCR well known as Optical Character Recognition is one of the leading branch of the Pattern Recognition [1].

The system reduces human efforts along with time. It can also be helpful for the person who doesn‟t know the language / pronunciation of particular words. The system can also be helpful for visually impaired or person with weak visual ability. Optical character recognition is the mechanical or electronic conversion of images of typed, handwritten or printed text into machine -encoded text, whether from a scanned document or a photo of document [2].

It is widely use as form as a form of information entry from printed paper data records, whether passport documents, invoices, bank statements, computerized receipts, business cards, mail, printouts of static data or any suitable document. OCR is a field of research in pattern recognition, artificial intelligence, computer vision [3].

The app uses a camera of an Android mobile device to take an input. Input is a binary image scanned by the camera. The OCR engine processes the image data and converts it into a text [4].

The respective text is then sent to Android Text-to-Speech. Android text-to-speech is an engine which has ability to convert the text into a speech. The system uses machine learning, it takes a training data and learns from it, hence the accuracy of the output grows down the pages, pass b y pass [5]

II. PROBLEM STATEMENT

Now-a-days Machine learning has become one of the peak of technology. Previously it was not possible to compute data at higher or faster rate, with the help of leading technology it is now possible to process data at higher rate to get optimized hence better result.

To image to text conversion is challenging task for maintain accuracy words.

III. LITERATURE SURVEY

[4]Esmeralda C. Djamal projected Autography movement emulate the written element of each individual's periodicity and design. By analyzing all fundamentals of handwriting and interpreting them, using typical of graphology author could initiate a chart of the writer's character attribute, sentimental constitution and gracious design. In graph logical analysis's, an image is separated into two accession that graphics attributes and partition digit each character. In this research, author employ graphical accession based on signature and digit of character of consumption scheme using many-frame algorithms and artificial neural networks (ANN). The image crack into two space: the signature occupied on nine appearance and consumption scheme of letters digit space. Each space had performed preprocessing to improve the recognition accuracy.

[5]Sandeep dhang on Handwriting Analysis of Human Behaviour Based on Neural Network, Graphology or Handwriting analysis is a scientific method of identifying, evaluating and understanding of anyone personality through the stroke and pattern revealed by handwriting.
Handwriting reveals the true personality including emotional outlay, honesty, fears and defenses and etc. Handwriting stroke reflects the on paper draw of each individual's rhythm and Style. The image split into two areas: the signature based on three features and application form of letters digit area.

[6] Javier Galbally, Julian Fierrez, Marcos Martinez-Diaz, R´ejean Plamondon E´cole Polytechnique de Montre´al focus on "Quality Analysis of Dynamic Signature Based on the Sigma- Lognormal Model". In this paper author distinct that various personal ethics can be precisely illuminate as a set of influential describe sequenced together by a Markov chain. To diagnose personal ethics from sensible data and to deduce personal ethics over a few seconds time, author then use these influential Markov layout. To ensure the virtue of this designing avenue, creator report an experiment in which, author was able to achieve 95% precision at predicting automobile driver's subsequent actions from their starting preparatory movements.

IV. PROPOSED SYSTEM

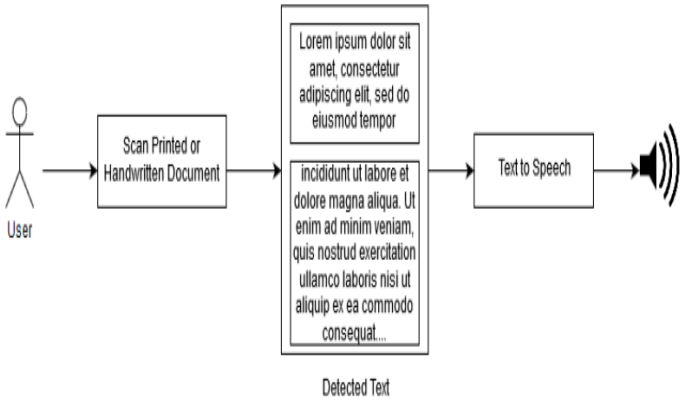

Fig 1. System architecture

Upload Module:
User can use system and upload image to convert text.

OCR Module:
As per the optical character Recognisation convert the image to text with limited accuracy .

Voice Module:
Once OCR Convert Image to text then voice will generate to read data.

V. CONCLUSION

It gathers data in binary image format, those images are processed for the Optical Character Recognition. The OCR recognizes the text from a binary image, and converts it into machine generated text. After text we apply the voice generation. The proposed system is also able to recognize the printed as well as handwritten text with limited accuracy.

VI. FUTURE SCOPE

In future scope use the recognized data is sent further for converting it into speech using Android text to Speech. The system reduces human efforts along with time. It can also be helpful for the person who doesn"t know the language / pronunciation of particular words. The system can also be helpful for visually impaired or person with weak visual ability.

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