Curing Tests on Online Authentication Threats with the Scope of Machine Translation Application

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Abstract – CAPTCHA approach makes us to clear the security issues in online authentication aspescts and thus this approach is very hard for indulging for the regular internet usage of users. The alternative approach of CAPTCHA is that mathematical functions logical functions and other problems that can only be understood by humans and they can answer correctly according to it and so I have used this CAPTCHA approach to differentiate human's capacity and computer programs that acts as humans.

Index Terms – CAPTCHA, NLP, OCR, Machine.

1. INTRODUCTION

Natural language processing plays a very important part in computer science field. The artificial intelligence chapter also adds fine part and computational linguistics are more based with the high interaction between the computers and human readable languages. So, natural language processing is related to the area of human–computer interaction. Challenges many of them made in natural language processing takes initiative in natural language understanding of the aspects and make the definite computers to give out the exact meaning from the human or any other natural language inputs in it, while other tasks involves in the natural language generating methods. Modern natural language processing based algorithms are mainly based on machine learning perspective and specifically very statistical measures machine learning. The graph of machine learning application is highly differentiated from the high priority based find outs at language processing. Priority based implementations of language-processing tasks that are typically involved in the direct hand written tasks of large set of rules.

2. TASKS IN NLP

The natural language processing has been performed with some of them that are most commonly known for their research tasks and some of those tasks have a direct real world applications while some other tasks which have more similarities in it to serve as subtasks that are used to help in solving big tasks. Finding out what are the major criteria's that seperates these tasks from other potential problems and actual natural language processing tasks and its not only the volume or capacity of research devoted to them but the fact and truth that for each one

of the task there is typically a well-defined problem setting measure and a standard metric measures for evaluating the task and the most standard corpora on which these tasks will be computed, and competitions or races devoted to the specific jobs being performed.

2.1 Automatic summarization

Automatic translation is used to produce a readable form of conclusive group of text. More often these datas are done with the given summaries of known type text, such as some their newspaper in the financial section wise of a newspaper.

2.2 Co-reference resolution

The co-reference resolution tells out that the sentence or bigger of text, finalizes out which of those words that refers to the same objects in it. The resolution is a particular examples given for those tasks and it is more specifically moved with relating up of words with the nouns or naming words. And the most general and important task of co-reference resolution will also include in finding out a process or task and is called bridging up of relationships that take part in referring the expressions.

2.3 Discourse analysis

The discourse analysis process includes more number of same tasks .The discourse analysis tells the most important task that is to find out the discourse structure or view of connected text such as the normal behaviour of the discourse relationships between sentences for example "elaboration, explanation and contrast". One more possible task that is to recognized,finding out and classify the speech that acts as a piece of text and for example yes or no kind of questions and their content questions, statements and assertions.

2.4 Machine translation

Machine translation means the text that is automatically translated from one human languages to another human languages .Thus machine translation is one of the most hardest problems that are being faced out, and is a member of a class problem most commonly that is termed as "AI-complete" and that is all about retrieving all the many kinds of knowledge or skills that the human does like grammar, semantics and facts

about the real world entities, etc and in which will be in order to solve the problems carefully and properly.

2.5 Morphological segmentation

Morphological segmentation involves in seperating words into many individual morphemes and finding out the class of the morphemes or same genes. The difficult or trouble that lies in this task and the task that depends more greatly on the complexity or difficulty of the morphology for example the structure of words can be dealt and language that is being considered to be so long. English has a simple morphology texture in it, specifically the inflectional morphology and so it is often possible to avoid this process or task completely and just simply model out all the possible forms of a word and for example "open, opens, opened, opening" as a unique words in them.

2.6 Named Entity Recognition

Given a stream of text or words and after that examine which items or parts in that text map is to be converted into proper names or nouns. The process will be related to some people or some places surrounding us and what the type of their names is to be found out and for example person, location or organization.

2.7 Natural language generation

Converting the information from the computer databases or fine datas into languages which the human can understand easily.

2.8 Natural language understanding

Natural language understanding involves in the finding out the semantic forms from the multiple possible ways of semantics or genes which can be got from natural language expression and that often takes the form of an well organized notations or symbols of natural language based factors.

2.9 Optical character recognition (OCR)

Given an image or picture representing the fine printed text messages and thus determining the relatively correlated text as a final outcome or report.

2.10 Parsing

Determining the parse tree which is also called as grammatical analysis of a given sentence. The grammatical knowledge for those natural languages that has more ambiguity or repeativeness and normal known sentences which have many other possible analyses.

2.11 Question answering

Question answering is that asking human understandable question and answer is given. Frequently some of the unique questions have a specific correct answers and for example "What is the capital of india?", but sometimes in other side an open-ended questions will also be considered in thi part and such as "What is the meaning of love?". Recently research peoples work have been seen at even at more larger blocks of questions.

2.12 Relationship Extraction

This task in instance given for set of datas in which this differentiates the relationship between those entities which are being named.

2.13 Speech Recognition

The sound clipping or snapping of a person or a people who is speaking will come to a conclusion that the textual description of the speech is being recognized.

2.14 Information Retrieval

Information retrieval defines storing, searching and retrieving information or datas. Information retrieval is the main part in computer science and it is slightly closer to databases, but information retrieval of information lies on some of the natural language processing methods and their forms and for example, stemming of information. Some of the current research methodologies and their applications seem to be in connection with the gap between IR and NLP.

2.15 Information Extraction

Information extraction its actually with the extraction of same or semantic information or datas from the given text. The information extraction task carries out covering of processes such as recognition of named entities, resolution based on co-reference and extraction between relationship.

2.16 Speech Processing

Speech processing task helps in coverage of recognition in speech and text-to-speech and many other tasks or jobs

3. APPLICATIONS

There are many applications based on natural language processing and they are:

3.1 swearing/Dialogue

Natural language interfaces or joins with a system of database or a dialogue system and this application act a major role in natural language processing.

3.2 Report Generation

Generating official reports on weather forecast

3.3 Machine Translation

Machine translation reveals that it's a translation of datas in binary format.

3.4 Information Retrieval

Information retrieval is mainly discussed as in web search and so both the uni-lingual and multi-lingual can be dealt with retrieval of data.

3.5 Other Small Applications:

Checking the grammar, Checking the spellings and Correcting it.

4. LITERATURE SURVEY

4.1 Clark pope[1] and Kushpreet kaur[2] says about Captcha's that can provide an easily programmable way to tellcomputers from humans and keep spammers and bots away from e-commerce systems.

4.2 Aleksey kolupaev[1] and jury ogijenko[2] says about incarnations almost every day on the Web: the most popular way of protecting Internet forms is to generate a special picture made up of letters and numbers and then ask the user to rekey it in a special box.

4.3 Captcha's design-color,usability and security said out by j.yan[1] and Almad El Almad[2],Newcastle university and Wai-Yin Ng of Chinese university of hongkong.

4.4 Captacha's as graphical passwords-A new security primitive based on hard AI problems said out by Bin B. Zhu[1], Jeff Yan[2], Guanbo Bao[3], Maowei Yang[4], and Ning Xu[5].

5. CONCLUSION

Finally, my dissertation lies in framework of how to design to give users a more flexible approach to authentication and help them avoid the tedious process of understanding the letters and digits in a task.and thus when an errors rise out they have been found out and they are being completed.The whole thesis with the basis of curing tests and give out a fine output of entry into the file.

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[5] Fg Captcha-Genetically optimized face image captcha's said out by Brian M. Powell, (Member, IEEE), Gaurav goswami, (Student Member, IEEE), Mayank Vatsa, (Member, IEEE), Richa Singh, (Member, IEEE),and Afsel Noore, (Senior Member, IEEE).