AUTOMATIC MCQ GENERATION

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Abstract

We propose classification of abstracts by considering their context. In proposed approach, we initially classify the documents. We find the context of an abstract by looking for associated terms which help us understand the focus of the abstract and interpret the information beyond simple keywords. The results indicate that context based classification increases accuracy of classification to great extent and in turn discovers different contexts of the documents. Further this approach can found to be very useful for applications beyond abstract classification where word speaks very little and lead to ambiguous state but context can lead you to right decision/classification. Automatic question generation is part of NLP i.e. Natural Language processing, is an area of research where many researcher have presented their work and is still an area under research to achieve higher accuracy. Many researcher have worked in the area of automatic question generation through NLP and numerous techniques and models have been developed to generate the different types of question automatically and in many different languages work has been done like English, Punjabi, China, Spain, etc.

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***Key-words:* Data analytics, Sentiment Analysis, News Articles ,LSTM-RNN,Arima, Deep-Learning.**

1. INTRODUCTION

New e-learning methodologies require assessment procedures that automatically measure the students' achievements during the teaching and learning process. These procedures must be compatible with other solutions that provide personalized feedback to students for understanding and improving the quality of their learning experience. Many e-learning proposals use Multiple-Choice Questions (MCQ) as an assessment tool. Basically, an MCQ consists of a question text and a few (e.g. four) choices, from which one is the correct answer and the others are incorrect alternatives (called distractors). MCQs are labor intensive, time consuming and difficult to construct. For this reason, recent efforts have focused on the automatic generation of well-constructed MCQs, mainly for vocabulary assessment or grammar exercises. The automated creation of tests involves generating distractors based on certain knowledge and, subsequently, using these distractors to create the assessment test.

2. RELATED WORK

Different dataset is used by different researchers to analysis the result through sentiment analysis. Some work is discussed in this section.

1. A Taxonomy of Questions for Question Generation. Center for Computational Language and Education Research, University of Colorado, Boulder Rodney.Nielsen @ Colorado.edu. Rodney D. Nielsen1, Jason Buckingham, Gary Knoll, Ben Marsh and Leysia Palen March 2014. - In summative assessment, questions are intended to evaluate the answerer's knowledge, understanding and skills.

2. Optimizing the Correction of MCQ test answer sheets using Digital Image Processing. 2016 Eighth International Conference on Information and Knowledge Technology (IKT), Hamedan, Iran. 978-1-5090-4335-4/16/$31.00 ©2016 IEEE- Image segmentation of our algorithm can be improved by choosing larger dimensions for neighboring matrices to resolve the recognition error occurring on the answer sheet. Also the software could be ported to smartphones that will allow teachers to travel to test centers carrying only printed tests with no need for additional resources, apply the tests, capturing images and calculating scores in locoing and being able to discuss the test results with the students on the same day.

3. Neural Models for Key Phrase Detection and Question Generation. 1MILA, Universit´e de Montr´eal 2Microsoft Maluuba February 2018. Sandeep Subramanian1,*,y, Tong Wang2, Xingdi Yuan2, Saizheng Zhang1,y, Adam Trischler2, and Yoshua Bengio1.- Our model first estimates the probability that word sequences in document compose "interesting" answers using a neural model trained on a question answering Or extractive nature of answers in documents.

4. Literature review of automatic question generation systems. School of Science, RK University **Associate Professor, College of Agricultural Information Technology. Sheetal Rakangor*, Dr. Y. R. Ghodasara** January 2015 -proposed framework helps in question generation by deploying agents, the agents will perform various operations like document processing, information classification and question generation.

3.Proposed model:

The various modes in which exams are conducted have evolved over the period of time. The traditional method of evaluating student's performance was based on Descriptive/Constructive Response type of test. The major disadvantage of such exam is that it is time consuming for both – the writing and assessment. To overcome this, we have Multiple-Choice Examinations (MCQs) which is a set of questions with a number of alternatives one of which is the correct answer. Hard maps in order to determine the difficulty level of a question. Existing approaches to MCQ generation primarily focused on generating questions from a single sentence. However, the text might contain certain facts that are expressed through multiple sentences. While studying human-generated MCQs in different domains, we found that many MCQs deal with such multi-line facts.
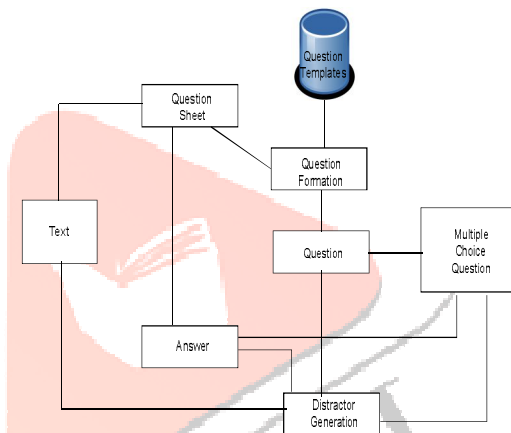
4. METHODOLOGY

Automatic Question Generation Systems takes a natural language text as input and generate questions of mcq types and scopes for the user. In particular, we focus on the problem of automatically generating factual questions from individual texts. Serious management problems concerning assessment using on-paper tests, especially to courses with a high number of enrolled students (ranging from 200 to 800).

5. MODELING AND ANALYSIS

- **User/Student**
  1. Registration
  2. Login
 3. Give MCQ Exam
  4. View Result
  5. View Progress

- **Teacher**
  1. Registration
  2. Login
  3. Upload PDF or Text file
  4. Select word for MCQ answer.
  5. Generating MCQ
  6. Select MCQ from generated MCQ Dataset.
  7. View student progress
  8. Suggest study material to student according to student progress.

- **Admin**
  1. Login
  2. Maintain Exam Details
  3. View Teachers
  4. View student progress

5. RESULTS AND DISCUSSION
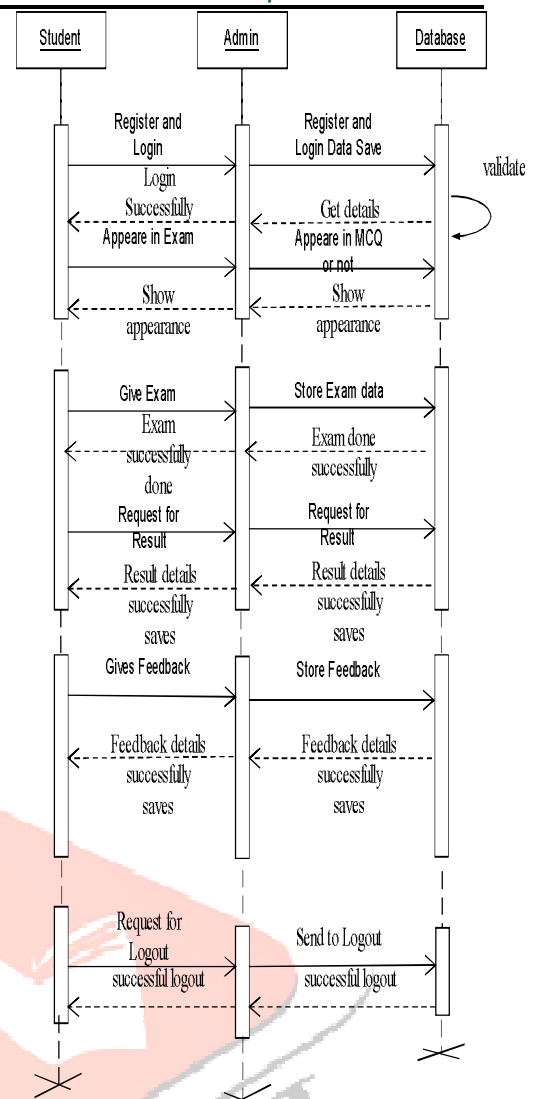
6.FUTURE WORK:

The scope of the generated questions is either specific or medium. Automatic Question Generation Systems that take natural language text as input and generate questions of various types and scope for the user. The best thing about this system is that make processing of generating Objective Type paper easy way and analyzing data generated by MCQ tests in order to overcome the existing problems of such test and thus help in enhancing the student's performance.
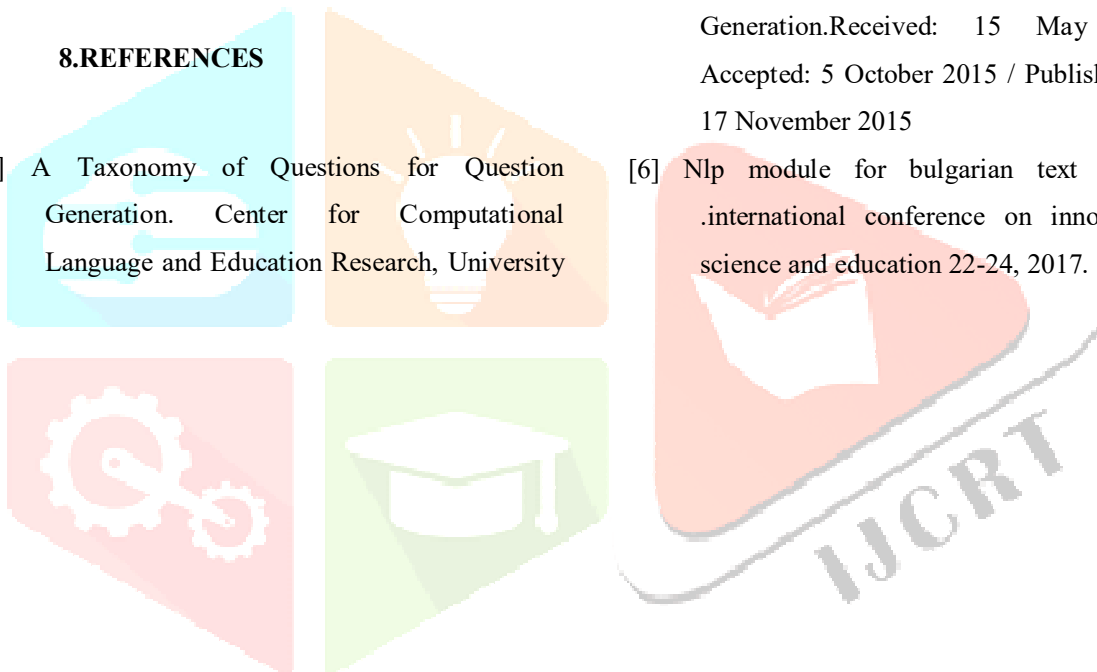
7.CONCLUSION

Multiple choice questions of fill in the blank type and analogous type were successfully generated. Questions of good standard were produced with reasonably high accuracy (higher compared with the existing models).Evaluation is essential in the teaching-learning process and MCQs are popular for educational assessment.

We established of six broadly classified dependent phases, namely, pre-processing, sentence selection, key selection, question formation, distractor generation, and post processing.

8.REFERENCES

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[6] Nlp module for bulgarian text processing .international conference on innovations in science and education 22-24, 2017.