A Survey on Automatic Multiple Choice Questions Generation from Text

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Abstract- NLP is an area of exploration where many researchers have presented their work and is still an area under exploration to achieve higher correctness. We are going to use NLP for an automatic question generation system. As in any education system, the examination is conducted to judge the caliber of the students. So to conduct the examination, the educator needs to generate the questions manually which is a very time-consuming process, so we have decided to develop a system through which automatically multiple-choice questions will be generated within some time and human efforts will be reduced. In this paper, we consider the Automatic Question Generation system that generates multiple-choice questions. To generate multiple-choice questions, the system uses various NLP techniques. This paper presents a review of work to generate questions automatically from the inputted text.

Keywords- MCQ, NLP, BERT, WordNet, ConceptNet.

I. INTRODUCTION

As of today a lot of institutions and organizations are moving their medium of conduction of exams from offline mode to online mode since manually setting of paper is a highly time-consuming and tedious process.

Hence there is a need of a system that can generate questions from a given set of text in need of an hour. This system plays an important part in time-saving since the need to manually setting paper is ridiculed. MCQ form of online examination conduction is advantageous since it helps in quick evaluation, less time in paper setting, and scope of the electronic evaluation.

II. PROJECT SCOPE

Our proposed system can be easily implemented at the various institutions and organizations such as colleges, schools etc. This system will reduce the efforts of the teachers as it generates Automatic Multiple Choice Questions within some minutes which will used to examine the caliber of students.

III. LITERATURE SURVEY

Itzaie Aldabe and Eurane Martinez [1] “An Automatic Question Generator Based on Corpora and NLP Techniques”: in this paper an automatic paper generation system which is independent from the test applications...
which uses it are presented. The information source consist of language based analyzed real corpora which is then presented in XML mark up language tools are used and then their robustness and influence is analyzed in this paper. Positive results are observed in evaluation of this system.

O.E Omojiola and Y.O Folajimi [2] “Natural language processing techniques for automatic test questions generation using discourse connectives”: In this paper automatic paper generation is achieved from narrative text using natural language processing and giving prominence on discourse connectivity. In discourse connectivity the relationship between two logical words or phrases is exploited and suggests the strong presence of relationship between them. Question are generated using text based datasets given by teachers are processing it using NLP based techniques.

Neung Viriyadamrongkij [3] “Measuring Difficulty Levels of JavaScript Questions in Question-Answer Community Based on Concept Hierarchy”: In this paper method to evaluate the difficulty level of question paper based on given question set is presented. Certainly we analyze the difficulty of terms that appear in JavaScript-related question based on proposed JavaScript hierarchy.

Akash Sajjan, Kulkarni S.G. [4] “Automatic Question Paper Generator System”: In this paper a system to generate question paper based on difficulty specified by admin is introduced. Generated question paper is then mailed to colleges. In this system to generate question paper only difficulty as specified by admin is taken into consideration.

Yang Liu, [5] “Fine-tune BERT for Extractive Summarization”: In this paper, BERTSUM, a simple variant of BERT, for extractive Summarization is introduced.

IV. OBJECTIVES

The objective of this study is to build a system that automatically generates MCQs.

- To learn required libraries and algorithm
- To reduce paper works and human resources

VI. PROPOSED SYSTEM

We propose a system to automate the paper set by analyzing the Terminology that appears in the questions. Creation of an Automatic MCQs Generator which will extract keys and distractors from a text dataset and create an MCQ by using NLP.

Merits of Proposed System

- Helpful for Educational system
- Less time consuming
- Saves from Manual Work
- Maximum work will be done within less amount of time
- User friendly

VII. CONCLUSIONS

Efficient multiple-choice questions are produced with quality distractors. The necessity of human intervention for generating question paper and answer is eliminated. The proposed system creates automated questions with the help of NLP that reduces human intervention and it is a cost and time-effective system also, the accuracy of the distractor generated is high.

This system not only helps teachers with E-assessments but also helps students who are preparing for competitive exams. Students can test their ability to solve the questions and can also check their understanding of the
concepts. A lot of time consumption on the paper setting is saved. This system will prove to be helpful in educational institutes. Simply, in other words, saving the very precious time, this proposed system is going to be very useful and time-saving for the Educational systems in numerous ways.

REFERENCES


