Automatic Multiple Choice Question (MCQ) Generation from Text

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Abstract: *In this system is to present an innovative approach for generating multiple choice questions in automatic way. Question Paper (MCQ) Generator special and unique software, which used in school, institution, colleges, test paper setters which want to have a huge database of questions for frequent generation of question papers. Questions can have included in paper as well as difficulty level on the percentage. We present a novel approach to automated question generation that improves upon prior work both from a technology perspective and from an assessment perspective. Our system is aimed at engaging language learners by generating multiple-choice questions which utilize specific inference steps over multiple sentences, namely reference resolution and paraphrase detection. The system also generates correct answers and semantically-motivated phrase-level distracters as answer choices. Evaluation by human annotators indicates that our approach requires a larger number of inference steps, which necessitate deeper semantic understanding of texts than a traditional single-sentence approach.*

Keywords: MCQ Generator, Distractor, Question, Choices

I. 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 distracters). 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 distraction based on certain knowledge and, subsequently, using these distracters to create the assessment test

II. PROBLEM STATEMENT

The aim of this is to build automatic Question Generation Systems that take a natural language text as input and generate questions of MCQ types and scope 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).

III. LITERATURE SURVEY

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

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 smart phones 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.

Neural Models for Key Phrase Detection and Question Generation. 1MILA, Universite de Montr´eal2Microsoft Maluuba February 2018.Sandeep Subramanian, Tong Wang, Xingdi Yuan, Saizheng Zhang, Adam Trischler, and Yoshua Bengio.- 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.

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.

Ontology-Based Multiple-Choice Question Generation.Tahani Alsubait1•Bijan Parsia1• Ulrike Sattler1 Received: 15 May 2015 / Accepted: 5 October 2015 / Published online: 17 November 2015. -> Proposed framework helps in question generation by deploying agents, the agents will perform various operations like document processing, information classification and question generation.

NLP module for bulgarian text processing. international conference on innovations in science and education 22-24, 2017 Stoyan Cherecharov,1 Hristo Krushkov,2 Mariana Krushkova3 -wide use of web-based information systems and a lack of highly skilled developers are the primary motivation to search for methods and approaches to optimize the building of such systems.

IV. SYSTEM ARCHITECTURE
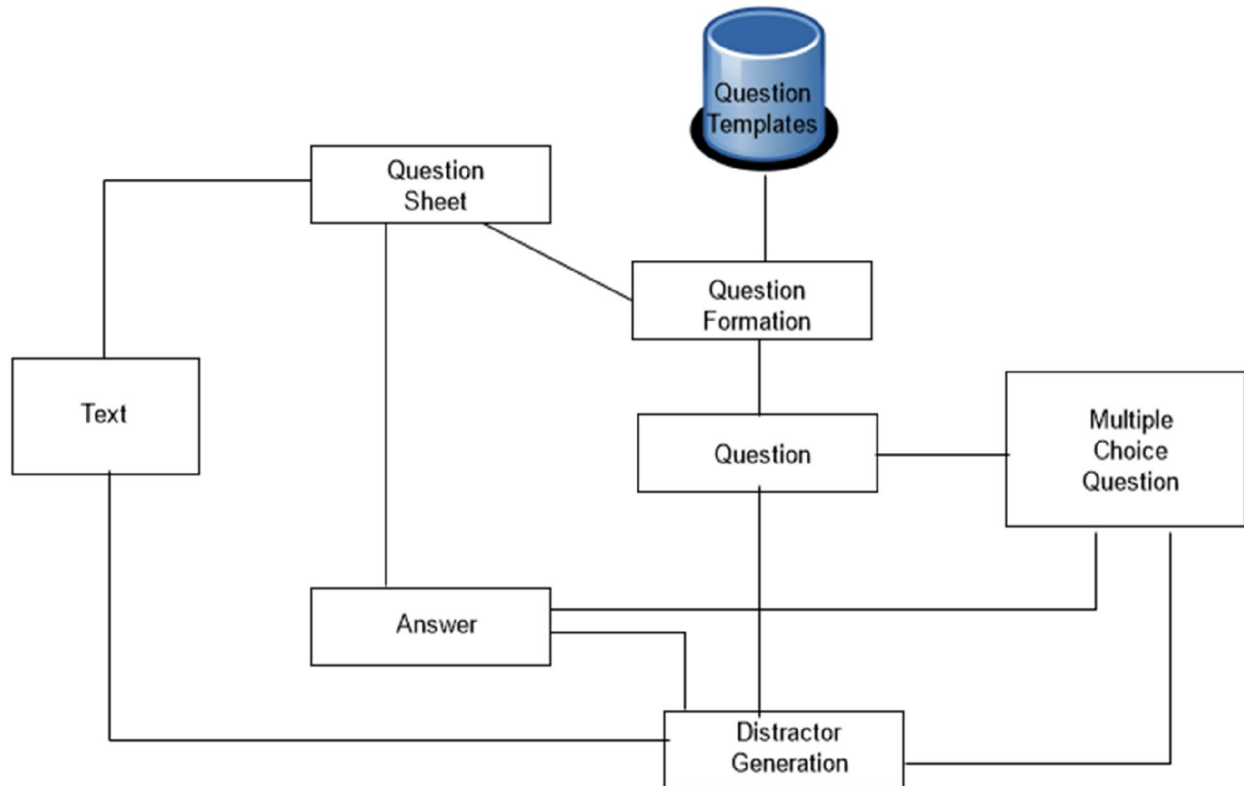
V. RESULTS
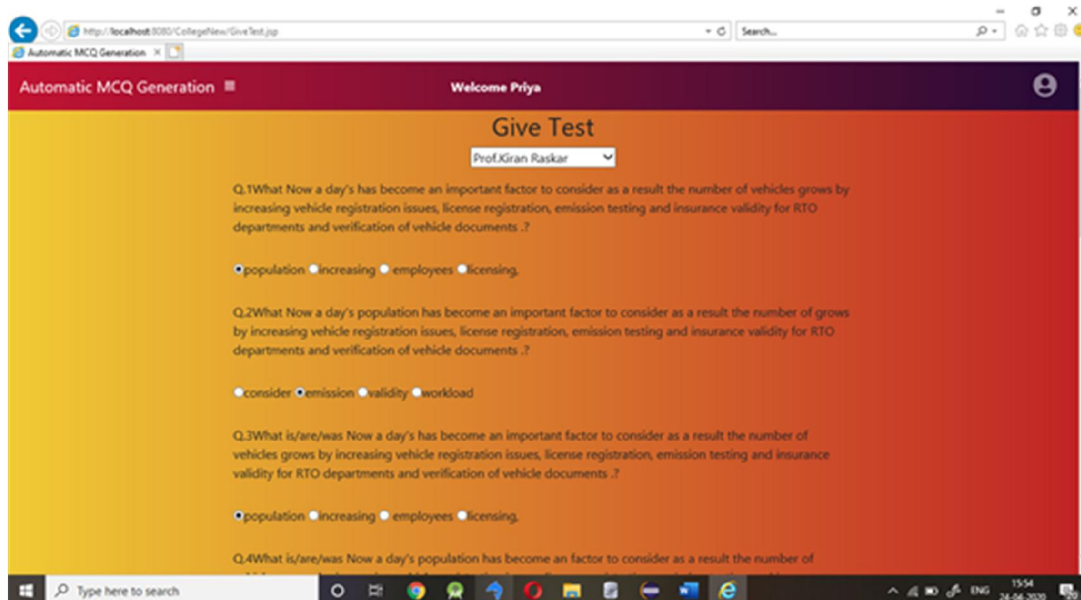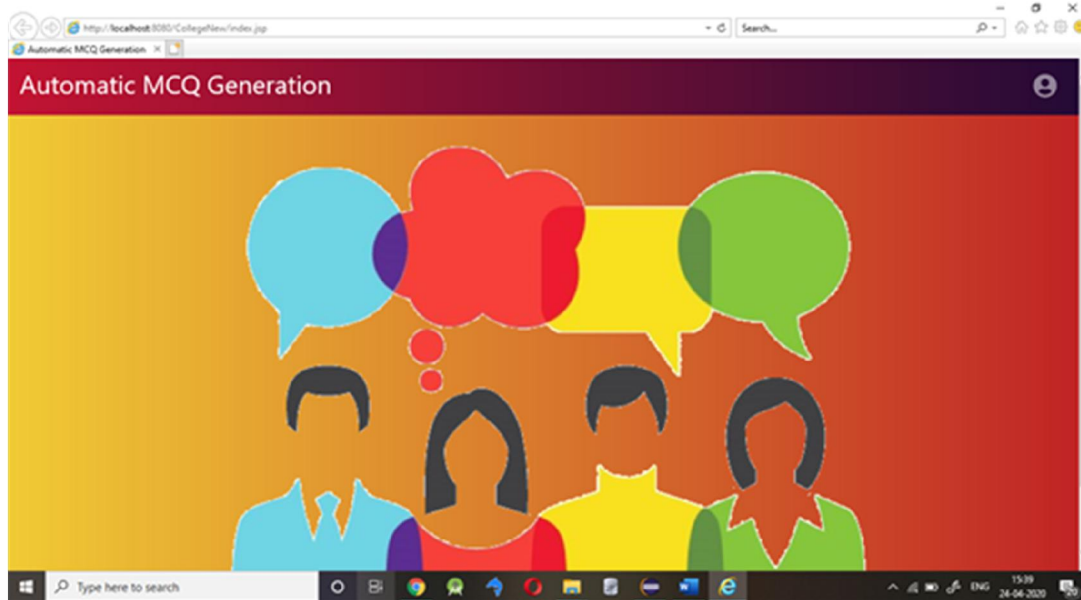
VI. FUTURE SCOPE

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.

VII. ADVANTAGES

- Quick Evaluation. On the other side the evaluation of descriptive questions takes significant time.
- Scope of non-human evaluation. Electronic or automatic evaluation is possible
- Reliable and consistent scoring.
- Factors irrelevant to the assessed material do not come into play; for example handwriting and clarity of presentation do not affect the test.

VIII. CONCLUSION

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.

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