University Paper Creation based on Bloom's Taxonomy and Machine Learning

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Abstract*: In any educational course curriculum, the courses are defined with learning objectives. Teachers conduct assessments to know if students have achieved certain learning objectives or not. Teachers generate variety of question papers as per the universities' assessment requirements. It is very challenging for the teachers to make question papers with varied questions and which meet learning objectives of the course. There are no standardized methods to ensure quality of question paper. Hence there arises a need to have a system which will automatically generate the question paper from teacher entered specification within few seconds. Researchers recommend different sets of tags such as cognitive level, difficulty level, type of question, content /topic for defining a question etc. In this system, we proposed an autonomous question paper- generation system. In our system we allow users to input a set of questions. We also allow the user to provide complexity for each of these questions. After this, the system will assign marks to each question based on Bloom's taxonomy using machine learning and then the questions are stored in the database along with their marks.*

Keywords: Question paper generation, Machine learning, Bloom's taxonomy, Natural Language Processing (NLP)

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