Paper Title:

Natural Language Processing and its Use in Education

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1 Summary:

NLP is the study of creating models and algorithms that let computers comprehend, interpret, and produce human language.

1.1 Motivation:

Natural Language Processing (NLP) is the process of automatically extracting relevant data from narrative text. Certain NLP algorithms classify text based on the possibility of a certain notion based on rudimentary principles.

1.2 Contribution:

The main goal of applying NLP in educational settings is to enhance the educational system through the implementation of effective and efficient policies that can support the use of advanced technologies to enhance the educational system.

1.3 Methodology:

NLP features assist students become more proficient language learners, but they can also give teachers more insight into the cognitive processes of their pupils. NLP can assist in identifying and predicting the mental states of students while they are learning by examining language use in the classroom.

1.4 Conclusion:

The numerous issues and obstacles in the educational system that have an impact on students' academic development and learning can all be perfectly solved by natural language processing and its educational applications

2 Limitations:

NLP models lack critical or creative thinking skills. They might find it difficult to reward or assess imaginative student answers, which are crucial in some teaching situations. Images, videos, and diagrams are just a few of the formats in which educational data is frequently available.

2.1 First Limitations:

NLP systems might find it difficult to distinguish between these meanings, which could result in misunderstandings. For example, it could be difficult for NLP models to appropriately contextualize a word that has different meanings in various academic disciplines.

2.2 Second Limitations:

When it comes to education, one of the biggest drawbacks of Natural Language Processing (NLP) is its incapacity to handle unstructured data. Multimedia components such as diagrams, videos, images, and other formats are frequently used in educational content.

3 Synthesis:

There exist several efficacious methodologies that facilitate e-learning and the utilization of up-to-date web-based content pertaining to curricula and courses. The results of the study make it evident that using NLP in the classroom can boost student output. NLP is a very useful method for helping students develop their understanding in real-world contexts and for evaluating the data that is available from a variety of sources.