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(57) Abstract :
Classification of text documents has its real-world applications. In fact, it is important to parse documents containing natural language and classify them. This kind of research is essential to leverage applications like fake news detection, query tagging, sentiment classification and spam filtering. However, it is a challenging problem to correctly classify text documents due to ambiguity, unrestrictive nature, and vast size of text documents. With the emergence of Artificial Intelligence (AI) machine learning (ML) techniques became valuable due to their learning-based approach. They are found suitable to process large volumes of data in more comprehensive manner. With ML techniques a wide range of problems such as topic segmentation, text classification, entity recognition, machine translation and text summarization, to mention few, can be solved. In this patent we proposed a framework known as Automatic Text Classification Framework (ATCF) which exploits shallow and deep neural networks towards text document classification. We proposed an algorithm known as Learning based Text Classification (LbTC) to realize our framework. We made a comparative study of different models and their performance. The proposed framework helps in classifying any kind of documents based on the training given to ML models. It can be integrated with real world applications where classification of documents is indispensable.

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