

Use-Case Analysis: Categorization of NLP Applications

Use-Case A: Email Folder Allocation

A model that allocates which mail folder an email should be sent to, similar to Gmail's inbox tabs, falls under the category of **Text Classification**. By analyzing the content of emails, this model determines the appropriate mail folder for each message, such as work, friends, promotions, or important. Leveraging NLP techniques, the model understands the email's content and context, allowing users to efficiently manage their inbox and prioritize their attention.

Use-Case B: Essay Grading Assistance

A model that helps decide what grade to award to an essay question, particularly useful for university professors grading multiple classes or essay competitions, falls under the category of **Text Classification**. This model assesses the content of the essay question and applies predefined criteria or rubrics to evaluate its quality. By objectively analyzing the essay's adherence to specific criteria, the model assigns an appropriate grade. This application supports professors in consistently grading a large volume of essays, saving time and ensuring fair evaluation.

Use-Case C: Diagnostic Assistive Technology

A model that provides assistive technology for doctors to provide diagnoses by leveraging patients' answers to questions falls under the category of **Question-Answering**. In this use-case, the model interacts with doctors, asking questions and utilizing patients' responses to generate probable diagnoses. By applying NLP techniques to understand and interpret the provided information, the model offers insights and recommendations to doctors, enabling them to make informed decisions and improve the accuracy of their diagnoses.

Summary

These categorizations demonstrate the primary NLP techniques and applications utilized in each use-case, facilitating a deeper understanding of their functionalities and benefits.