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Project Proposal

Project Title: Examination of emotional-based interactions on social networks using sentiment analysis from AI to develop engagement-predicting models.

Introduction and Motivation

1. **What:**

   This research investigates how emotions influence user engagement on social media platforms. To improve community moderation and content recommendations, sentiment analysis driven by artificial intelligence is utilized to comprehend the emotional instances of online interactions.

   Emotional content frequently drives user engagement on social platforms, which are popular for exchanging ideas and feelings. One type of Natural Language Processing (NLP) that aids in recognizing and interpreting the emotions conveyed in text is sentiment analysis. The project aims to capture the complex dynamics of human emotions across cultures and languages by creating AI models that forecast user behavior based on emotional indicators. This is a difficult task because different people express their emotions differently**.**

2. **Why:**

   This study is important since social media user behavior is greatly influenced by emotions. We can forecast engagement, increase real-time community moderation, and improve personalized content suggestions by decoding emotional signals using AI-powered sentiment analysis. In order to make platforms more accessible and flexible, it also tackles the difficulty of identifying emotional subtleties across languages and cultures. By using sentiment analysis, digital communities will become more emotionally intelligent and healthy.

3. **How:** We will be using the GoEmotions dataset, and we will process the dataset removing irrelevant content. We will analyze emotion detection using NLP models. The models will also have to be trained in order to classify data and represent the data. A

model will be developed in order to estimate how users engage with detected emotions. There will be a suggestion system that uses emotion and preferences in order to recommend content. We will measure the effectiveness of the model based upon scoring systems and accuracy.

Link To Data Set:
https://www.kaggle.com/datasets/enesztrk/goemotions-dataset2