

# Preface

Sentiment analysis is a new area of study in the field of artificial intelligence (AI) that is concerned with identifying and categorizing feelings and opinions in text data. Sentiment analysis has become an indispensable tool for businesses, legislators, and researchers to study the public's perception of goods, services, events, and policies as a result of the exponential rise of social media and online communication. Innovative natural language processing (NLP) models and methods have been developed by Open AI, a renowned AI research organization, to boost sentiment analysis research.

Due to the large amount of unstructured data produced by social media, online reviews, and customer feedback, sentiment analysis has grown to be a crucial topic of research in the science of natural language processing (NLP). We used the VADER lexicon-based technique to analyze sentiments from text data in this sentiment analysis research. The widely used sentiment analysis program VADER (Valence Aware Dictionary and Sentiment Reasoner) assigns positive, negative, or neutral sentiment scores to text data using a pre-built sentiment lexicon. Here, characterize the sentiment of text data using the VADER lexicon-based technique reliably and effectively.

Through this research, it is demonstrating how VADER sentiment analysis can be used to accurately forecast sentiment in a variety of contexts, including social media, product reviews, and customer feedback. We anticipate that this initiative will shed important light on the potential uses of VADER sentiment analysis and stimulate additional study in this area.