Problem Statement:Bipolar disorder classification through text.

\*\*Abstract:\*\*

This research project represents a pioneering effort in harnessing the vast amount of textual data generated on social media platforms to advance the early detection and intervention of bipolar disorder. Bipolar disorder, characterised by extreme mood swings and varying levels of mania and depression, poses a significant challenge for timely diagnosis and treatment. In this study, we propose the development of a state-of-the-art machine learning model, driven by natural language processing (NLP) techniques and advanced sentiment analysis, to analyse the textual content of social media activity.

The heart of our research lies in the utilisation of a diverse and extensive dataset comprising text-based social media posts, comments, and interactions from individuals with and without a bipolar disorder diagnosis. By meticulously annotating and categorising these data, our model aims to identify linguistic patterns, emotional cues, and semantic markers that are indicative of bipolar disorder symptomatology. Leveraging the power of big data analytics and deep learning algorithms, our model will undergo rigorous training and validation processes.

The potential impact of this project is profound. Early detection of bipolar disorder through social media analysis can offer several advantages, including the ability to reach individuals who may not have sought clinical help yet exhibit concerning symptoms. Furthermore, this approach could assist mental health professionals in identifying high-risk cases, enabling timely intervention and support. By combining the cutting-edge capabilities of computational linguistics and artificial intelligence with the wealth of user-generated content on social media platforms, we aim to contribute to the broader objective of improving mental health outcomes in the digital age. This project underscores the critical intersection of technology and mental healthcare, with the potential to revolutionise the way we understand and address bipolar disorder.