**Primary Research Methodology:**

The literature review conducted highlighted validity concerns with regards to annotation and sampling. Sarcastic tweets were primarily sourced across the surveyed literature through identification of key hashtags such as ‘#sarcasm’. This strategy was shown to result in an unrepresentative sample of sarcastic tweets. This is likely to reduce performance on sarcasm detection models and thus true performance of such models is difficult to assess. One study found that only 15% of tweets labelled as sarcastic using this methodology were true labels- highlighting the shortcomings of this strategy.

Datasets with a more robust sampling methodology exist, however there is little data available in these datasets which contain emojis. The proposed primary research methodology aims to improve upon this and create a more representative sample of sarcastic online content containing emojis. Previous work has been conducted to improve upon this poor annotation strategy however the majority of the tweets collected do not contain emojis; the iSarcasm dataset collected self-reported sarcastic and non-sarcastic tweets from participants, alongside a rephrase of the tweet in a more literal style. The work was subject to quality control by a linguistics professional therefore it is likely that the results to this point are more representative of organic sarcastic content than the previously discussed sampling strategy. This primary research aims to adapt this dataset to evaluate emoji use patterns in sarcastic and non-sarcastic tweets. The adaptation will consist of the addition of emojis to known sarcastic and non-sarcastic text by survey participants. The methodology will collect quantitative data regarding demographics of the sampled population in addition to quantitative data regarding emoji use in sarcastic and control content. The components of the survey and target population are discussed in section X.

The goal of this work is to generate a dataset of verified sarcastic and control data which is richer in emojis. There are some limitations to this strategy; these are tweets where the author did not originally use emojis. While the use of emojis is known to be systematic in nature, it is a reasonable assumption that two people create a tweet with matching sentiment and pragmatic intent, where one uses emojis and the other does not. A more optimal approach would ask participants to self-report a sample of their tweets containing emojis as sarcastic and non-sarcastic to generate a dataset rather than providing prompts due to the possibility of irrelevant text to the participant reducing the quantity of usable results for each participant. The issue of relevance is addressed by enabling participants to not assign classifications to text which is not relevant or understood by them. The alternative of submission of sample text containing emojis with classifications of sarcastic and non-sarcastic would likely yield more relevant results to the participant however this approach significantly increases the effort required from participants which would decrease response rate and possibly reduce the likelihood of the task being completed as instructed.