

# 1 ABSTRACT

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This study investigates the use of popular politeness theories over social media forums like Stack Exchange and Reddit. Various popular politeness theories are hypothesized and tested over social media forums. In order to conduct the hypothesis testing, thorough investigation of various tools, techniques, and datasets for predicting politeness scores of textual data is conducted. Along with data pre-processing of investigated datasets, data collection over these social media forums is carried out to collect new datasets so that we have datasets befitting our hypotheses. Investigated tools and techniques are then used for training machine learning models and conduct politeness prediction over our datasets. We perform rigorous hypothesis testing using F-test, T-tests and Person correlation test. Results of this study discover very interesting insights into how politeness theories work on social media forums. One interesting insight from this research is that comments posted by females are more polite when compared to comments posted by males, however, comments posted by females don't get more polite replies when compared to replies made to comments posted by males, nevertheless, replies made to comments posted by users of the opposite gender are more polite than replies made to comments posted by users of the same gender.