



Multimodal Review Helpfulness Prediction

CZ4079 Final Year Project: #SCSE22-0411

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Project Overview:

Review helpfulness prediction is a crucial task in e-commerce and involves predicting the helpfulness of product reviews by analysing their content and providing useful insights to customers and businesses. 93% of consumers in a study conducted by Podium said that online reviews have a strong impact on purchasing decisions, making this a very important and relevant topic.

Existing text-based algorithms achieve reasonable performance in review helpfulness prediction. However, these algorithms rely solely on textual information, which may not always capture the complete context and nuances of a review. Therefore, incorporating additional modalities such as images can enhance the accuracy of review helpfulness prediction by providing additional context and visual cues.

This project aims to explore the effectiveness of multimodal algorithms involving text and images for review helpfulness prediction. The project first analyses the performance of existing text-based algorithms and then researches multimodal algorithms, to provide a more comprehensive understanding of the factors that contribute to review helpfulness.

Image 1 hence reveals the nuances captured by multimodal algorithms that help generate accurate helpfulness scores and Image 2 identifies modalities that can be explored to generate better reviews helpfulness scores.

The project's findings demonstrate the effectiveness of multimodal algorithms in review helpfulness prediction and highlight the importance of incorporating additional modalities to improve the accuracy of the task. The results can be applied to various domains such as e-commerce, social media, and customer service, providing useful insights to both customers and businesses.

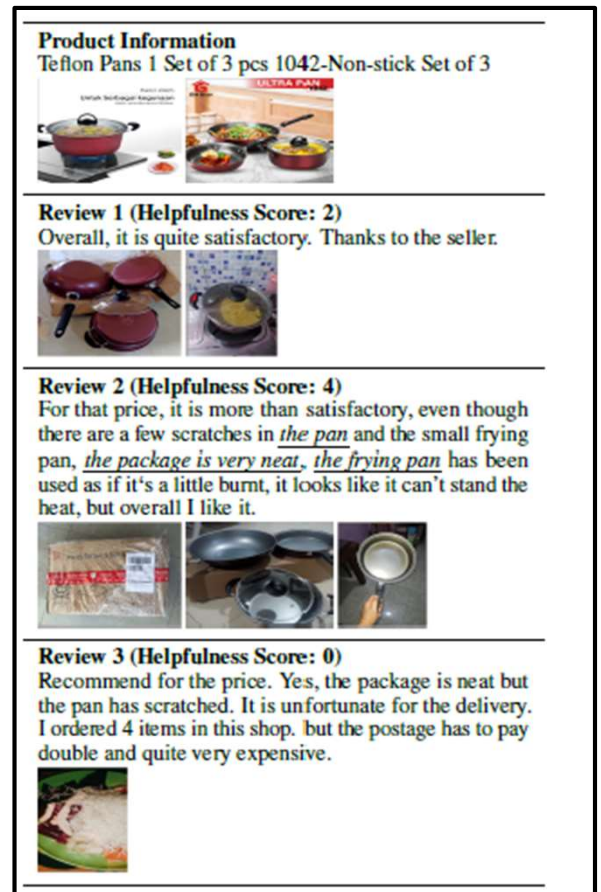


Image 1: Product-Review Coherence

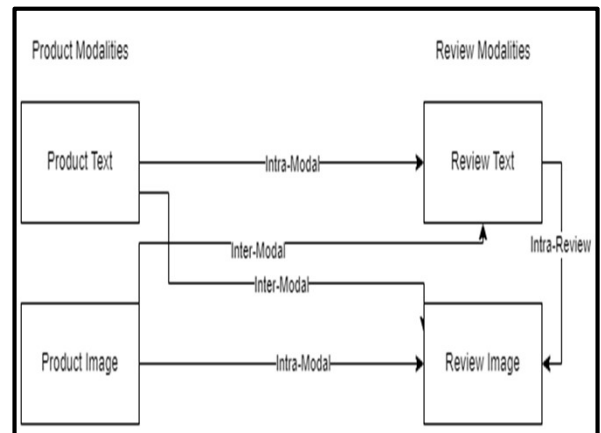


Image 2: Product-Review Modalities