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| **Research Title** | Helpfulness Prediction Model for Thai IT Product Reviews |
| **Name** | Thitichote Chaimuang |
| **Degree** | Master of Science |
| **Major Field** | Computer and Information Technology |
| **Thesis Advisor** | Name of Advisor |
| **Graduate Year** | 2022 |

**ABSTRACT**

The rise of e-commerce platforms in Thailand has transformed shopping habits, where product reviews influence purchasing decisions. This research aims to propose a machine learning model that predicts the helpfulness scores of reviews, enabling efficient sorting and display to customers based on their levels of helpfulness, saving time and facilitating informed choices. In order to overcome the absence of a dataset for training the model, we implemented a dataset creation methodology specifically designed for reviews in Thai, addressing the lack of available data in Thai language. The pre-trained RoBERTa model is chosen based on its lowest MAE during cross-validation, demonstrating superior accuracy compared to alternative models, and its reliable performance on the test set validates its ability to make accurate predictions for unseen data. Furthermore, the implemented model significantly improves the review sorting order on an e-commerce platform, as indicated by participants who rated the implemented system higher in terms of perceived accuracy, requiring less user effort, and fostering greater user loyalty compared to the platform's baseline. These findings highlight the effectiveness of the implemented model in enhancing the user experience and assisting users in making informed decisions based on helpful reviews.

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