Factors Influencing Mobile App User Experience: An Analysis of Education App User Reviews

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Abstract

In the competitive digital world, user reviews considered as the most vital source of user feedback, provide valuable insights that reflect the success of software applications in terms of user experience (UX). As user-generated content grows exponentially, extracting meaningful information from user reviews has become an immensely challenging task. Though existing approaches can identify UX factors from mobile app reviews with a certain accuracy, prioritizing these factors poses a significant challenge. This research proposes a method to identify influential UX factors for mobile app reviews. Specifically, we did an in-depth analysis on educational app reviews of the Google Play Store. Notably, it was revealed that, although short reviews are pivotal for sentiment analysis, short reviews (word count < 3) do not significantly contribute to the generation of well-defined and meaningful topics in topic modeling. The quality of the generated topics for UX factor identification was quantitatively evaluated using coherence scores. Scores of 0.56 and 0.49 were obtained for positive and negative topics, respectively, indicating the effectiveness of the topic generation process. In addition, word embedding was utilized to prioritize the topics generated from topic modeling. There, the thumbs-up count of the reviews playsa significant role in identifying the most influencing UX factorsof educational mobile apps. The proposed method serves as a guide for researchers and practitioners to extract and prioritize UX factors from mobile app reviews in various domains.

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