

## **PERSONALIZED M-FLYER BASED ON USER PREFERENCES USING K-NEAREST NEIGHBOR TECHNIQUE**

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### **Abstract**

The exponential growth of mobile communication technologies provides marketing with opportunity to connect with consumers directly on their mobile phones beyond traditional and digital media. Nowadays, advertising via mobile devices is very interested, however, it still demand additional investigation. The underlying paper discusses how to determine the nearest consumers around the target user to personalize a suitable flyer. The interested items based on consumers' similarities are collected and then used to personalize a suitable flyer to the target customer. The paper builds an algorithm called Consumers Similarity Algorithm (CSA) which measures similarities among consumers' profiles and return a list of similar users. An investigation was done to detect the impact of the CSA on the classification used by K-Nearest Neighbor method. An experimented was conducted and its results was discussed using KNN-CSA and without it. The score of F-Measure for KNN-CSA is very close to 1 which indicates that there is a high performance of the KNN when is merged with CSA than its performance alone.

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**Keywords:** Mobile Learning Application, Adaptive m-flyer, User Modelling, k-nearest neighbor Technique, Machine Learning.