MOVE SMART PREDICT

Using novel method to define user relations and recommend activities based on those.

TECHNICAL DESCRIPTION

To get the most of the data we were presented with, we decide to get use out of the *Move* table. We enhanced each datapoint with the customers *Age* and *Gender*, taken from the *UserActivity* table. The existing features *MetMinutes* and *Duration* were multiplied to get an additional feature we call *intensity*. The *daytime* component from the *TimeStart* column completes our feature vector. The *KMeans* algorithm lets us split the datapoints into distinct clusters. For the given data, six clusters were a good fit.

Having classified each users movement data, a users affiliation to each cluster is calculated and collected in a six dimensional vector we call *user affiliation*.

A distance measure between users can be defined based on the euclidian distance between two user affiliation vectors. This gives us the possibility to classify users as similar or different.

Suggesting new activities to users is a two step process. Firstly, we randomly sample users from each category (close, intermediate and distant). Secondly, we smartly choose activities the sampled people enjoyed. We display them in the categories *You might enjoy, Others enjoy, Have you heard of*.

The category *Have you heard of* helps the users move between clusters and not be stuck in a bubble of similar users.